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RAILWAY AGE

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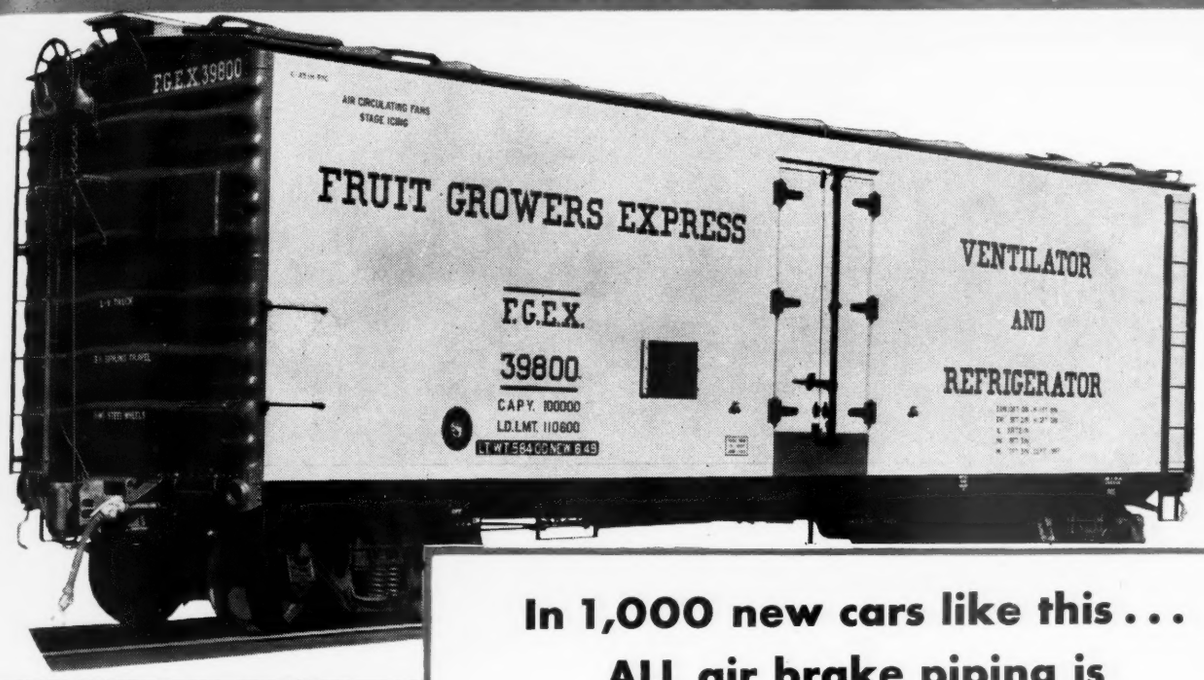

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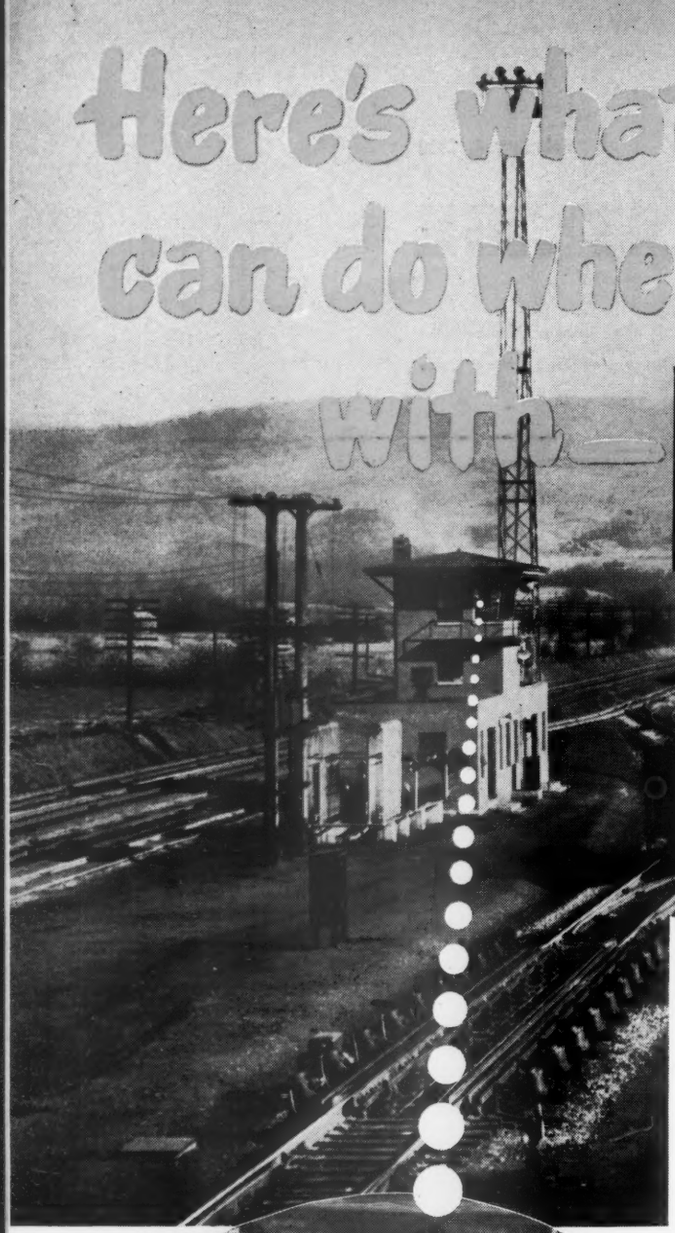
Here's what a small yard can do when it's equipped with—

"UNION" RETARDERS



This classification yard—equipped with "Union" Car Retarders—consists of only 16 classification tracks. And one operator per shift controls the 4 retarders and 19 power switches. Yet, approximately 1500 cars are classified daily.

Eight quick dispatch trains are received between 6:00 A.M. and 11:00 A.M. . . . are completely classified by 1:00 P.M. . . . depart in 7 trains due out between 10:30 A.M. and 1:30 P.M. Five quick dispatch trains arrive between 4:35 P.M. and 7:30 P.M. . . . are classified between 6:00 P.M. and 1:00 A.M. . . . depart as 7 scheduled trains between 8:15 P.M. and 1:00 A.M.

During the "off times," when no quick dispatch trains are in the yard, loaded hoppers flow over the hump to be classified. Most important, *the increased capacity that has been provided has made it possible to transfer work to this yard from other yards.*

UNION SWITCH & SIGNAL COMPANY

SWISSVALE PENNSYLVANIA

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WEEK AT A GLANCE

ON THE GRAPEVINE: A bill to amend the Railway Labor Act to permit inclusion of union shop provisions in working agreements between the railroads and the various railroad brotherhoods may soon be introduced in Congress. Decision to have such a measure drafted and dropped into the Congressional hopper was reportedly reached at a meeting of the Railway Labor Executives' Association in Washington late in January.

REVERSING THE TREND: A good many important fresh fruit and vegetable distributors would like to see a reversal of their industry's present trend toward increasing use of truck, instead of rail, transportation, according to some of their recent statements. Factors behind this feeling are reported to be (1) their investment in produce terminals and other fixed assets geared to rail service, and (2) the fact that rail transport, with its better statistics on "what's moving," cuts down the element of risk involved in the inherently speculative produce business—a risk largely enhanced by unregulated truck movement of fresh fruits and vegetables. Offsetting factor is the lower rates and, frequently, better service, offered by trucks. But if the railroads can come somewhere near meeting competition on those points it looks as though they could recoup a lot of their perishable business. Witness, for example, the reported success of the Bangor & Aroostook and its connecting lines in recovering potato traffic from Maine to New York by lower rates and faster service.

FIGHTING SOCIALISM AT THE GRASS ROOTS: The opening gun in a "grass roots" campaign against socialism by the railway supply industry was fired last week at Danville, Ill., before an audience consisting largely of Chicago & Eastern Illinois supervisors, and with an American Locomotive Company executive as the principal speaker. An account of the meeting appears in the News.

DOING IT THE EASY WAY: When there are two ways of doing a thing—and when one way costs only one-tenth as much as the other—it's usually common sense and good business to use the cheaper method—which is just what the Monon did in renewing its bridge across the Wabash river near Delphi, Ind. What the project involved, and how it was carried out, is told, with illustrations, on page 44.

STILL BUYING HEAVILY: The upsurge of railroad buying of new equipment that began with the turn of the year is still continuing. Our regular monthly summary shows total purchases reported in January of 5,625 freight cars—63 per cent of the number ordered in the whole of 1949—and 179 Diesel-electric locomotive units, which is ahead of the 1949 monthly average. This week, there are additional orders for 26 more D.-E. units and an inquiry for another 36; and orders for 3,550 freight cars, 3,100 of them for the S.P. Thus, 1949 freight-car purchases have been approximately equalled in only five weeks of 1950. In addition, two roads on opposite sides of the country contracted for three of the Budd Company's new rail Diesel cars for passenger service.

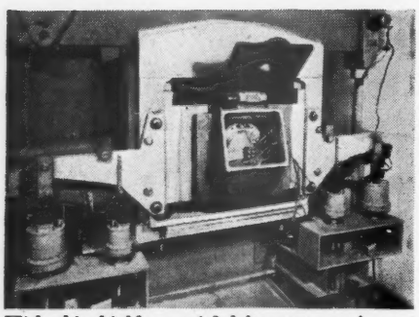
WHO'S TO BLAME? Interstate Commerce Commissioner Richard F. Mitchell has taken sharp exception to a statement in one of our recent editorials relative to the long delay in decision on the railroads' request for increased mail pay. His remarks on the subject, from the record of recent mail-pay-case proceedings before the commission, are quoted verbatim in one of our leading news stories (page 54), while our first editorial (page 35) explains more fully this paper's position, and the reasoning behind our earlier statement.

NEWS ROUND-UP: Announcement by the Pennsylvania of plans for improved l.c.l. freight service.—A report on "productivity" in the railroad industry.—An I.C.C. examiner's report favoring the Express Agency's revenue-apportionment plan.—A report of progress in freight-car truck tests.—Latest Congressional action on the "radio-rules" bill (H.R. 378)—and a report of a case in which skillful use of train radio averted a possible accident.—Hearing dates on reparations cases.—How the Santa Fe cut its time-table costs.—Bi-monthly list of meetings and conventions of railroad associations.—Probable appeal of the rail-barge decision.—A report on freight loss and damage.—Labor protest of the coal-conservation order.

FREIGHT CARS—REPAIR, REBUILD OR BUY? Beginning on page 38 is the second and concluding installment of William Wyer's interesting and informative discussion of freight-car economics, Part I of which appeared last week. In this second part, Mr. Wyer illustrates the formula developed in Part I by applying it to a hypothetical example based on assumed figures. He also discusses errors frequently made in estimating costs, and intangible benefits for which no mathematical allowance can be set up.

THE PROBLEM OF HIGHWAY DESTRUCTION: "To correct deficiencies" in highways and streets, according to one of the week's news stories, the people of the United States would have to shell out the incredible sum of *$41 billion.* It's little wonder, under such circumstances, that state highway engineers—responsible for preserving what is left of our present highways—are becoming increasingly concerned over the flagrant abuse of those roads by commercial truck operators—that small minority of all highway users who want to make their vehicles bigger and bigger and heavier and heavier, and who, all too frequently, disregard and openly violate existing weight laws. For an example of what some highway engineers think about the present situation, see pages 42 and 43.

Resistance of A.A.R. Solid Bearings not affected by temperature—*EVEN AT 30 BELOW!*

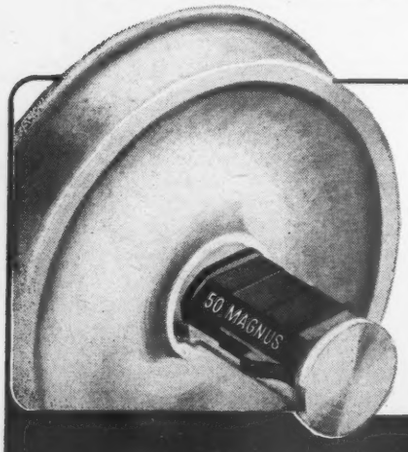


With this highly special laboratory equipment developed by the A. A. R. Mechanical Division, journal resistance can be separated from all other elements of resistance in train operation.

TESTS HAVE PROVED that during winter operation the maximum initial accelerating resistance of the solid bearing is uniformly less than that imposed by any other type of bearing assembly—averaging approximately 6½ lbs. per ton as compared to some resistances of over 45 lbs. per ton for other bearing types. Moreover, solid bearings, unlike other types of bearings, do *not* materially reflect the increased overall train resistance experienced in adverse winter weather.

Of course, bearing resistance, in itself, is ordinarily an insignificant factor in train operation. But under extreme winter conditions—with iced tracks and snow-packed road beds—this lower resistance of the solid bearing can help you *move* the maximum tonnage for a given draw bar pull.

Write for additional data.



No other type of bearing offers you all of these service-proved advantages

MAXIMUM DEPENDABILITY: In daily operating service, an unequalled record for bearing assembly performance.

SMOOTHEST RIDING QUALITIES: Lateral shocks are flexibly controlled—not rigidly opposed. More miles per wheel set.

LOW ACCELERATING AND RUNNING RESISTANCE: Glides on a single film of oil, like a skater on ice. No complicated moving parts.

EASE OF MAINTENANCE: Can be fully inspected or replaced on the line in about 10 minutes. No shopping required.

UNIVERSAL INTERCHANGEABILITY: Simple — dependable — economical — safe.

LIGHT WEIGHT: Saves more than 100,000 pounds dead weight per hundred car train.

ROCK BOTTOM COST: Saves over 25% on total car cost.

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Who's to Blame for Laggard Increases in Mail Pay?

As reported on page 54 herein, Interstate Commerce Commissioner Mitchell on January 26 criticized this paper from the bench for observations in our January 21 issue to the effect that a reasonable increase in payments to the railroads for carrying the mail is mighty slow in coming through; and that the I.C.C. might appropriately bestir itself a little more zealously in this direction than it has done. The railroads first asked for an increase in payment for handling the mail — of 45 per cent, at that time — in February, 1947, practically three years ago. At the initial hearing on that application, in July, 1947, the railroads further requested that they be granted an "interim" increase of 35 per cent. After mulling over that motion for almost five months, the commission in December, 1947, granted an interim increase of 25 per cent. That 25 per cent is, to date, all the increase the railroads have received above the prewar level for the handling of the mail. They have since raised their request for a permanent increase to 95 per cent with an interim increase of 60 per cent. Meantime the commission itself has noted that the railroads probably lost $373 million in 1948 on their head-end traffic, which includes the mail service.

If that record of fact evidences any extraordinary zeal on the part of the commission to prevent the railroads from losing their shirts in the performance of one of their important transportation functions, then possibly we do owe Commissioner Mitchell and his colleagues an apology. Railroad wages have risen 110 per cent over the prewar level. The price of materials and supplies is up 95 per cent. Taxes have almost tripled. In partial recognition of these increases in costs, the commission has authorized, seldom with undignified speed, increases aggregating 57 per cent in freight rates and 34 per cent in passenger fares. Express rates have been advanced 60 per cent.

A Prima Facie Case

If the fact of all these increases in costs and their partial recognition in other rate increases does not establish a *prima facie* case for a long-overdue increase of much more than 25 per cent in charges for carrying the mail, then one may well wonder what kind of evidence would be required. The same trains and the same employees that move other traffic also transport the mails. The trains carrying the mails move over the same tracks as the rest of the traffic. It is wholly impossible that the railroads' overall wage rates should have advanced 110 per cent and their cost of materials 95 per cent without having affected the cost of handling mail just as much as that of all other rail-borne traffic. Why except the mails from increases applied to all other traffic?

We did not and could not in justice accuse the conscientious commissioners of deliberate malfea-

sance. The commission has established a courtly and deliberate procedure for dealing with rate cases, and we did not and do not suggest that it has strung out its procedure any more than customary in dealing with this mail-pay case. What we do suggest is that our system of rate regulation is a *means* and not an end. If the means now employed sacrifices desirable promptness to time-wasting decorum, then as much of the decorum as the law permits should be discarded. If the law or either of the litigants, rather than the I.C.C. itself, is the principal contributor to the delay, then let the commission say so, and call for correction.

The I. C. C. Has the Power

The I.C.C. has the power to decide how much evidence it requires, either to establish the need of the railroads for increased revenues or to justify rate increases on specific kinds of traffic. Regardless of what its precedents may be in the conduct of such cases, these precedents are its own and it can make new ones, if it is sufficiently impressed with the desirability for revision. The logic of government regulation of a necessary public service such as railroad transportation is that such regulation shall protect — not work to the detriment of — the public interest in the provision of the regulated service. The function of a regulatory agency is not that of a jailer or executioner — to punish or destroy a criminal; instead its job is to keep a useful workhorse hitched to the plow. The regulators would be keeping better faith with the public to unhitch Old Dobbin altogether and let him pasture himself at will, rather than see him expire in harness for want of proper rations.

There is not a member of the I.C.C. bench, if he is competent to sit there, who is not fully aware that the public interest in the maintenance of an efficient system of railroad transportation under private ownership is gravely threatened when this industry is able to earn less than $700 million of net operating income in a year of such general prosperity as 1949. The utter inadequacy of such earnings — not with reference to some theoretical standard of "fairness" to investors, but from the practical consideration of the selfish interest of the public in the continuance of satisfactory railroad service — transcends in importance anything else there is about the railroad industry which concerns the regulators. The railroads have been placed under their "fostering guardianship." What kind of guardian is it who insists on putting his ward through the intricate steps of a procedural minuet when the little tike is pining away for want of a square meal?

How can it be doubted that there is something wrong with a system of rate regulation which, after almost three years, can show no more responsiveness to economic reality than to maintain a 25 per cent increase in rates in the face of an increase of 100 per cent in costs? If precedents in the handling of evidence in such cases are the deterrent, then the precedents should be abandoned. If the letter of the law is the obstacle, then the I.C.C. as an agent of Congress has the right and duty to ask Congress to change the law. If spokesmen for some administrative agency are serving as persecutors rather than prosecutors and are making it difficult or impossible for the Interstate Commerce Commission properly to exercise the "fostering guardianship" of the valuable wards entrusted to its care, then the commission has the moral duty to warn both Congress and the President of this obstacle and ask its removal.

Once again — we did not and do not suspect or accuse the commission of malfeasance, in a legal sense. We simply question whether it is taking as broad a view of its duties as the realities of present circumstances require. Unless the regulatory authorities evidence realism and skill in adapting their methods to changing circumstances, then the agencies of regulation are in just as much jeopardy as their unhappy charges. Commissioner Mitchell erred, of course, in imputing to "the railroads" any responsibility for editorial opinion expressed in this paper. He also erred in his statement that Mr. Faricy had blamed the I.C.C. for the railroads' failure to secure compensatory payments for handling the mail.

WHERE TO DIRECT LOCOMOTIVE RESEARCH

From time to time proposals are made for improvement in the efficiency, availability and performance of steam locomotives. These proposals may be divided roughly into two classes—those which embody improvements to the steam locomotive in its present form, and those which offer somewhat radical changes in design. For the immediate future, the first-named of these categories appears to serve the most useful purpose. To make long-range predictions on future motive power would be to go away out on a limb; it seems reasonable to assume that the immediate future of steam power is more dependent on refinements to the present basic design than it is on any radical departure from this design.

The turbine drive, either geared or electric, has been offered on a number of occasions as one means of improving steam locomotive efficiency. To substantiate the contention of higher locomotive efficiency, examples of marine and power-plant turbine efficiencies are frequently quoted. The weakness of these examples is that locomotive conditions are not comparable to the other turbine installations.

For one thing, to make a turbine appreciably more efficient than a reciprocating steam engine, it must either receive steam at a higher temperature or exhaust it at a lower temperature, or both. To accomplish the former, considerably more refined water treatment would be necessary. Would the additional expense be justified? On a ship or in a power plant, expensive water treatment is not uneconomical because the same water is used over and over again; in a locomotive, it is used but once.

To exhaust the steam at a lower temperature would require a condenser which would reduce the exhaust pressure. This poses two problems—one being the condenser itself. To date none of the experiments with condensing equipment on locomotives, with one possible exception, has met with anything like success. Even if the problem of the condenser were solved, the second problem remains: Where would there be room on a locomotive to put a large enough turbine to handle low-pressure exhaust steam?

At a pressure of 15 lb. per sq. in. gage, a reasonable average for non-condensing exhaust, each pound of steam occupies a volume of a little under 14 cu. ft. At a vacuum of 29 in. of mercury, each pound occupies over 700 cu. ft. Even at a vacuum of only 28 in., each pound occupies over 350 cu. ft. At a given water rate in pounds per hour, therefore, a much larger turbine will be required to handle the greatly increased volume of steam than would be needed for exhausting at above-atmospheric pressure. While a large low-pressure turbine might conceivably be mounted on a locomotive with a running gear and cab arrangement similar to the Diesel locomotive, it is difficult to hold much optimism for the future of such a locomotive type.

It would appear, therefore, that improvement in the existing design is the most promising objective for research in improving steam propulsion. The present design does have its good points. It is rugged, simple and easy to maintain—this being, perhaps, one of the reasons for its difficulties. Because it could stand abuse, it was abused, and although it would continue to operate, such operation was unduly expensive. On roads where the steam locomotive has received reasonable care, it has given, and is still giving, a good account of itself. Entire classes of steam power have attained availabilities approaching 90 per cent; others are attaining mileages that compare favorably with the best from other types of power.

A locomotive that can do such things in its present form should not be radically changed in design when such a change will add greatly to its building cost and increase substantially the complexity of its maintenance. Just about as much can be attained by the proper attention to the fundamental details of maintenance and servicing, as has been proved by several roads. And it can be done without increasing the cost or complexity, or without risking an expensive failure of the design as has occurred on highly experimental designs in the past.

SLASH YARD-CLEANING COSTS

The railroads are on the threshold of a development in yard-cleaning methods, which, if they take hold of it, will save them hundreds of thousands of dollars annually. That yard-cleaning — the removal of car spillage and droppings, engine cinders and general debris — has been costing the railroads several million dollars annually may be news even to some railroad men, but it is so. Annual costs at individual terminal yards have ranged up to $30,000 or more in recent years, under the largely manual methods heretofore employed.

Yard-cleaning is not carried on primarily for appearance's sake; it is absolutely essential in most switching, classification and storage yards in the interest of economical track maintenance, and to procure the safety of those who must walk about these yards day and night. When cleaning becomes necessary, it is no small job — tons of material spread out over large areas must be picked up and disposed of, often while intensive yard operations are in process.

One road, in each cleaning, usually removes from 250 to 270 carloads of droppings and debris from two classification yards, involving about 40 mi. of tracks. Another road recently loaded out about 225 carloads of material from about 50 mi. of yard tracks.

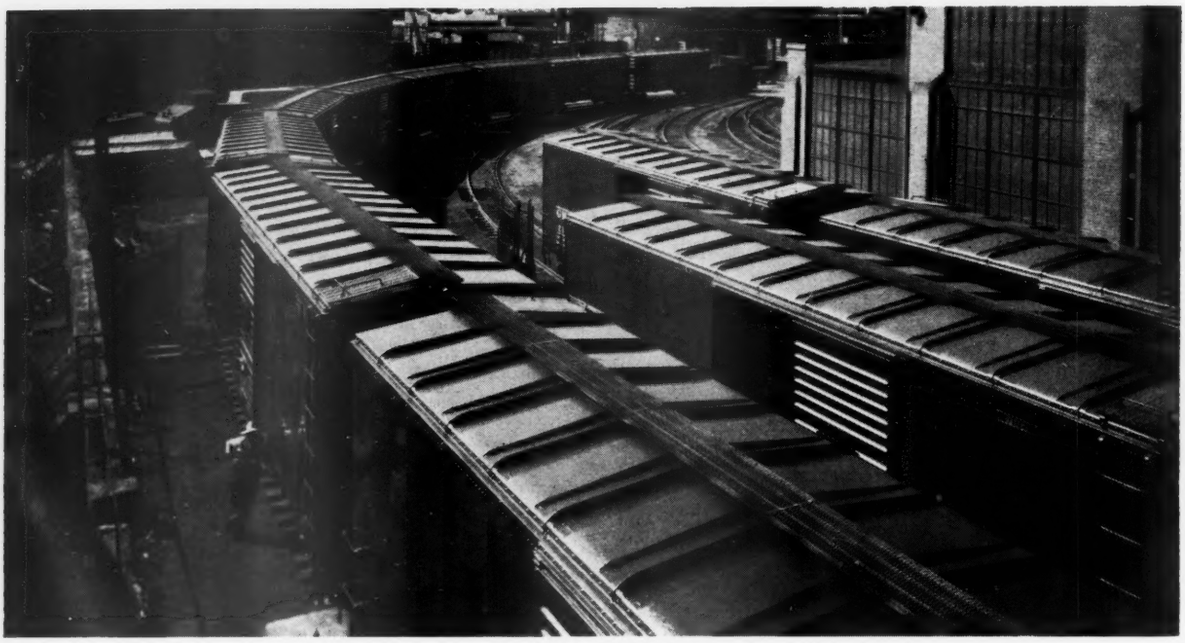
On the first road each cleaning, using a large force of track laborers and largely hand methods, has cost upwards of $35,000, and would cost considerably more today under present wage rates. The work on the second road, done with machines and a crew of only seven men, was carried out at only a small fraction of the other road's cost. In fact, this road estimates that its machines and seven men, working intermittently, did three times the amount of work that formerly required 40 men working continuously for several months.

Still more specific of the economies possible in mechanized yard-cleaning is the comparative record of hand-cleaning and machine-cleaning in a small coal yard on the second road mentioned above — a yard which has to be cleaned every year. In earlier years, when this yard was cleaned manually, it required a force of eight men and a foreman 30 days to do the work. Last year, using machines and a force of six men and a foreman, the yard was cleaned in a little more than three days, with a saving of 1,970 man-hours.

In the light of the intensive mechanization of most track-maintenance operations during the past 20 to 25 years, it is difficult to understand why mechanization of the costly, time-consuming work of cleaning yards has been so largely neglected. Whatever the reason, a start has now been made, and in machines presently on the market or soon to become available, the door is opening to savings too big to be overlooked any longer.

FREIGHT CARS—Repair,

PART II



"Shippers undoubtedly continue to favor lines which can customarily supply them with modern equipment in good repair"

In order to illustrate how the formula developed in Part I of this article (see *Railway Age* of January 28) would work, a hypothetical example is given below, based on assumed figures.

Suppose an old car is due for general overhauling. The cost is estimated at $1,500, and this is expected to add five years to the life of the car. It is assumed further that the company can borrow money on equipment-trust certificates at an interest rate of 2 per cent; that the current net scrap value of the car, allowing second-hand prices for usable units, would be $500; that its average running repairs for the next five years after general overhauling would be $125; that the annual taxes and insurance on the car would be $10 and $2 respectively; that 350 serviceable days per year can be expected after overhauling, and that the annual depreciation on the car as it stands on the books would be $70.

Table I shows the daily cost of owning and maintaining this car during the next five years.

If a new car were to be purchased to replace this car, let us assume it would cost $4,800 and would have an estimated life of 24 years. Further assumptions are that its annual depreciation under I.C.C. regulations, which of course allow for some recoverable scrap value at the end of its life, would be $175; that the average running repairs during the first five years of its life would be $25; that taxes and insurance would be $20 and $4, respectively, and that it would provide an annual average of 360 serviceable days for the first five years of its life. The daily cost of owning and maintaining this new car during the first five years is shown in Table 2.

Table 3 shows the deductions for income tax purposes in connection with the two cars. The difference of $223 represents the estimated increase in taxable net income as a result of purchasing the new car. If the company expects to be in an income-tax category during the entire period and its effective rate is 38 per cent, the increase in income taxes as a result of purchasing the new car would therefore average $85, or 24 cents per serviceable car day. These calculations are summarized in Table 4.

The Break-Even Point

From the administrative point of view the problem of the individual railroad is not squarely met by the above example, since no two cars of any one series will cost exactly the same for general overhauling. As the cars are inspected upon reaching back-shop repair yards it will be found that the cost of repairs covers a wide range.

It may very well be that some of the cars can be

Rebuild or Buy New?

By WILLIAM WYER*

Application of the formula developed in Part I demonstrated by example—Common errors in estimating costs

repaired economically, while others clearly should be scrapped.

From the practical point of view, therefore, the railroad needs to establish a limit up to which it will repair cars and beyond which it will not. This point, of course, is reached when the average daily cost of owning and maintaining the overhauled car is the same as that of owning and maintaining the new car.

In the case of the set of facts given above, each variation of $100 in the cost of overhauling the existing car makes a difference of about 3.9 cents per day in the saving between the old and new car costs. This is arrived at by deducting $20 (or 1/5 of the $100) from the annual cost of overhauling the existing car, and deducting $1 (or ½ of 2 percent on $100) as interest on the undepreciated cost of overhauling. This is a total deduction in the annual cost of maintaining the existing car of $21. If the car gives 350 serviceable days this is a reduction of exactly 6 cents per day.

This also affects the income tax calculation through reducing the income deductions in the case of the old car by 1/5 of $100, or $20. This reduces the increased income tax by reason of purchasing the new car by 38 per cent of this amount, or $7.60, which, allowing for 360 serviceable days a year, amounts to about 2.1 cents per serviceable day. The net of these two figures represents 3.9 cents per day change in favor of the existing car as the result of a reduction of $100 in the estimated cost of overhauling.

Since the saving per day for the new car against the old on the basis of the example given is 22 cents, including full effect on income taxes, the cost of overhauling the existing car would have to decrease by enough to wipe out the 22 cents saving before the critical limit would be reached. This reduction would be the result of 22 cents divided by 3.9 cents multiplied by $100, or approximately $565. On the basis of the facts given, therefore, the company would not be justified in spending more than $1,500 minus $565, or $935, for the general overhauling of an existing car of the type involved.

These breaking points vary, of course, depending upon the facts in each comparison, so that in actual practice there will be an almost endless number of possible combinations. Certain general characteristics, however, apply to all of these combinations and it may help to understand them to put some typical figures in the form of a chart, based upon the assumptions already described. In this chart the daily cost of ownership is plotted vertically, while the estimated life secured from

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TABLE 1—DAILY COST OF OWNERSHIP OF AN OLD CAR REQUIRING GENERAL OVERHAULING
Cost of repairs, $1,500; added life, 5 years

1/5 of cost of general overhauling	$300
Interest on undepreciated cost of general overhauling, ½ of 2 per cent on $1,500	15
Running repairs	125
Taxes	10
Insurance	2
Interest on scrap value at 2 per cent	10
Total annual cost	$462
Serviceable days	350
Average cost per serviceable day	$1.32

TABLE 2—DAILY COST OF A NEW CAR FOR THE FIRST FIVE YEARS

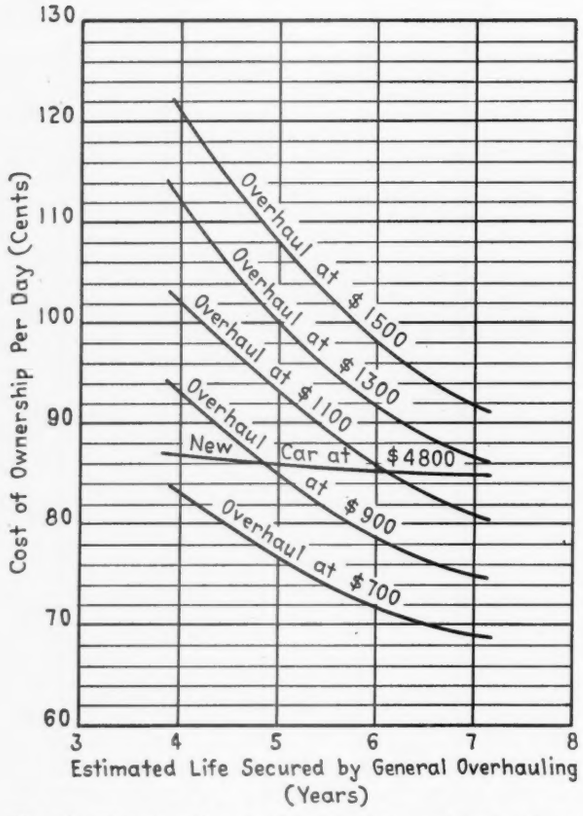
Interest, 2 per cent on $4,800, multiplied by $\frac{1+19/24}{2}$	$86
Depreciation	175
Repairs	25
Taxes	20
Insurance	4
Total annual cost	$310
Serviceable days	360
Average cost per serviceable day	$0.86

TABLE 3—COMPARATIVE EXPENSE DEDUCTIONS FROM ANNUAL INCOME AFFECTING INCOME TAXES

	Old car	New car
General overhauling	$300	...
Interest (This is the average annual interest on equipment trusts at 2 per cent on which a 25 per cent down payment has been made with installments to mature in 15 years)	...	$60
Running repairs	125	25
Property taxes	10	20
Insurance	2	4
Depreciation	70	175
Total	$507	$284

TABLE 4—CALCULATION OF INCOME-TAX EFFECT

	Old car	New car	Saving
Taxable increase in net income	...	$223.00	...
Tax at 38 per cent	...	85.00	...
Tax per serviceable car-day	...	0.24	...
Cost per car-day:			
Including effect on income taxes	$1.32	1.10	$0.22
Excluding effect on income taxes	1.32	0.86	0.46



How the life extension secured by overhaul expenditures affects the break-even point with the cost of owning new cars

the general overhauling is plotted horizontally. The lines on the chart show the variation in the daily cost of ownership depending upon the life estimated to be secured. All lines include the complete effect of variations in income tax, although this is reflected in the cost of ownership of the existing car instead of in the cost of ownership of the new car as in the example given above. This is necessary because these savings in income tax vary with the cost of the overhauling and therefore must be computed separately for each different overhaul cost shown on the chart.

It will be noted that the daily cost of ownership of the new car is relatively constant, resulting in a nearly horizontal line, but that the daily cost of owning existing cars drops very rapidly as the expected life increases. It will be further noted that on the basis of the various assumptions involved an overhaul costing $1,500 is definitely uneconomical as compared with the purchase of a new car at $4,800 unless a very long life can surely be obtained, the requirement probably being close to 9 or 10 years. An overhaul of $1,300 would only be economical if eight years of life could be assured. An overhaul costing $1,100 would probably be economical if more than six years of life is assured, with the breaking point for a $900 overhaul being somewhere around five years. If four years or more of life could be secured from a $700 overhaul this would appear to be clearly economical.

To read the chart in another way, if it is estimated that only about four years of life can be obtained from overhauling a series of cars it would be cheaper to purchase new cars, except in such cases as the overhaul would cost less than $800. If five years of life can be reasonably expected overhauls up to about $900 would appear to be justifiable. If six years of life can be obtained the breaking point for overhauls would appear to be close to $1,100, while if seven years of life can be obtained the limit can be justifiably raised to slightly over $1,200.

The chart just discussed, of course, applies to overhauls designed to put from four to seven years of life into a car. Charts covering rebuilding jobs would be of exactly the same type except that the amounts of money involved would run substantially higher, probably between $2,000 or $3,000, and the years of life to be added would also run greater than in the case of overhauls.

Reliable Cost Estimates Required

In some cases it may be that a relatively small expenditure, much less than the cost of general overhauling, will permit the existing car to be returned to service for a short period of time, such as 60 or 90 days. If the additional cost of such an expenditure is less than the per diem rate being paid at that time for foreign-line equipment, it may be desirable to make such expenditure, even though the car is to be retired shortly thereafter and even though new equipment is to be ordered to take its place. This, however, is merely a stop-gap expedient justified at times when surplus cars are not available on line and where the use of foreign-line cars would be necessary at any increased per diem expense.

Many railroads do not have on hand reliable basic data with which to make many of the estimates required for complete application of the formula outlined above. It has been my experience in such instances that the costs of overhauling or rebuilding frequently are underestimated, and that the probable life added by overhauling or rebuilding often is overestimated. This cannot be attributed to any deliberate attempt to mislead but rather to a real lack of information, plus the laudable human trait of optimism. The chart already discussed emphasizes the great importance of securing accurate data as to those items.

An important first step toward more realistic estimating is the preparation of an analysis of Account 314 over a representative period. The analysis should show:

1—Inspection costs, including shop expense.

2—Other direct labor and material including shop and store expense. This should be separated between (a) running repairs, (b) general overhauling, and (c) rebuilding. The latter two items should be separated further according to the class of car.

3—Amounts collected from foreign lines on A.A.R. billing for repairs to foreign cars.

4—Amounts paid to foreign lines on A.A.R. billing for repairs to system cars. This item should be analyzed according to classes of cars and the amounts so obtained compared with the number of car days of each class off line.

5—Casualties.

6—Other.

Item 2a, less Item 3, divided by the number of car-

days of home cars on line during the period involved, will give the average cost of running repairs per car-day for system cars at home. This furnishes a good base upon which to estimate the probable running repairs on any specific class of car while at home, after giving consideration to its type, design and age.

Similarly, Item 4 should furnish a good base upon which to estimate the probable running repairs on the car while on foreign lines.

A spot analysis of the factors enumerated above, while providing satisfactory data for current estimates, still falls far short of the ideal. By the time the next appraisal period arrives, repair experience, price levels, and many other factors may have changed. There is much to be said, therefore, for a continuing record of freight car costs along the lines suggested above. In the past the probable increase in accounting expense has been a major stumbling block, but with the increase in the use of modern machine equipment in railroad accounting this objection is rapidly disappearing.

Additionally, such a running record would emphasize the variations in the daily cost of owning and maintaining cars of varying types, sizes and design, and would stress the importance of giving further consideration to the desirability of variable per diem rates, especially for special service cars and possibly based on age. Such data, especially if it led to higher rates for newer cars, would be a powerful factor in bringing about a general improvement of freight car equipment, with resultant benefits to the entire industry.

Intangible Benefits

Intangible benefits from the modernization of equipment, for which no mathematical allowance can be made in our proposed formula, undoubtedly should influence many close decisions as to the wisdom of overhauling or rebuilding.

Shippers undoubtedly tend to favor lines which customarily can supply them with modern up-to-date equipment in good repair. It might even be that the traffic department could give specific assurances as to certain business which would be obtainable if new cars were available. Many new cars also are designed to reduce damage claims, to offer lower rolling resistance and thus make possible heavier train loads, to permit operation at higher speeds, to be loaded and unloaded more efficiently, to promote safer operation, or to contribute in other ways to greater efficiency of operation. The owning road will only participate in these benefits to the extent that the car remains on its own rails, and to the extent that other cars in its trains permit full utilization of the advantages of the new car, but as each road makes its own contribution to the general improvement of freight car design, the industry as a whole will begins to reap these benefits.

As far as general public relations are concerned, one of the best advertisements that any railroad can have is a new freight car which immediately catches the public eye, whether of travelers by rail or highway or of those living or working along the line.

Another very important intangible element is the question of shops, shop machinery and shop yard tracks, especially the items of maintenance, insurance and taxes. As already noted, there is no allowance in any of the formula items for these costs. Nevertheless a reduction in the amount of overhauling or rebuilding done in freight car shops undoubtedly effects some saving in such costs. The saving would become most substantial and worthy of attempt at measurement through a special study if the adoption of a general policy of less rebuilding and more purchases of new cars should make it possible to close specific shops or shop buildings or to eliminate the use of particular machines.

It will be noted that the unit costs per day of owning new freight cars and of keeping old cars in repair are both substantially lower, based on the examples here used, than the going per diem rate of $1.75. This will be true of almost any set of figures which realistically reflect current costs. This is because the costs entering into the calculation of the per diem rate include all of the overhead costs already mentioned which have been excluded from our figures and also include some allowance for existence of surplus equipment. Unless, therefore, the purchase of new cars will involve a railroad in extensive capital expenditures in order to provide repair facilities for those cars or will result in other increases in overhead costs or undue surpluses of those cars, it would seem to be in the interest of every railroad in the country to provide itself with sufficient freight cars to be sure that it is not paying through heavy per diem expense more than it would cost to own an adequate supply of its own.

In this respect each railroad's problem may well be different than its neighbor's and this article does not attempt to set forth a formula for determining whether a railroad's freight car ownership is sufficient for its needs. But it is believed that the figures, in addition to illustrating a method for making sound decisions regarding rebuilding or overhauling, also clearly point the way to economies available to many railroads through an increase in their existing ownership of freight cars.

INDUSTRY MUST KEEP EXPANDING

American industrial society has achieved many noteworthy things, but there is one thing that it has not accomplished. It has never yet produced enough of its products for distribution at a fair price to the people who need them. No company and no industry has yet been big enough to bring enough goods to enough people. To fulfill its promise and deserve its power, industry must continue to grow. It must grow even to keep abreast of our present living standards, let alone improvement upon them. I do not believe that there is a shred of actual evidence to indicate that the bigness which has been the glory of American business has been an evil force either economically or socially. Much has been said, but very little has been proved. . . .

To anyone at all familiar with the conditions of hardship and poverty and dire distress under which large portions of our people live, it is all too apparent that our productive facilities have a long way to go in fulfilling even the most basic needs. I suggest that the attention of our economists, of our lawmakers, and of our law-enforcers, be turned not towards ways of putting limits on production and creation, but towards ways to stimulate and encourage new growth and development on the part of all industry.

—Charles E. Wilson, president of General Electric Company

HIGHWAY DESTRUCTION —A Major Problem

[This article is a reprint of a report by the Subcommittee on Overloads of the Committee on Maintenance and Equipment of the American Association of State Highway Officials. It was presented by that subcommittee—R. H. Baldock, of Oregon, chairman, C. L. Motl, of Minnesota, and R. M. Whitton, of Missouri—to the full committee, of which Mr. Baldock was also chairman; was unanimously approved by the full committee, which includes a representative from each of the 48 states; and on October 13, 1949, at San Antonio, Tex., was further adopted by the A. A. S. H. O. with a resolution which read in part as follows:

"Whereas, notwithstanding the very liberal maximum standards formulated and promulgated by this association relative to highway vehicle sizes and weights, particularly to the recommended maximum single axle load of 18,000 lb., great damage to our highways has resulted from the failure of some highway users to respect and comply with these well-considered standards; and

"Whereas, this ruinous practice of overloading our roads is destroying our primary highways faster than we can rebuild or replace them; . . .

"Now, therefore, be it resolved, . . . that each member state or regional group of states be advised and urged to initiate a vigorous, fearless and sustained program of law enforcement, including special springtime restrictions, and that every effort be put forth to secure the legal adoption of the A. A. S. H. O. standards in those states which now legally sanction sizes or weights in excess of these standards; and

". . . that this association urges all highway users and shippers, whether public or private, to refrain from contributing, either directly or indirectly, to the abuse of our public highway systems by overloading."

Not even the most rabid trucker can accuse state highway officials as a group of being unduly pro-railroad. Yet the subcommittee report—with emphasis on the supplied italics—bears out in every essential detail the railroad contentions that trucks of excessive size and weight (1) inflict substantial damage on public highways, and (2) materially increase the cost of building and maintaining those highways.—Editor.]

Highway officials—federal, state and local—are greatly concerned by the rapidly increasing cost of maintaining highways and streets. During 1946 state highway departments spent approximately $355,000,000 for maintenance of state highways, and all levels of government spent $890,000,000 for maintenance of roads and streets in the United States. In 1947 these amounts were increased to $446,000,000 and $1,080,000,000, respectively. If this rate of increase continues for an appreciable period of time, the condition will soon be reached wherein there will be no funds for construction of new roads or reconstruction of old roads.

This is particularly unfortunate because of the amount of highway depreciation the country faces. During the great depression and the second world war, it was impossible to provide in an orderly manner for restoration of depreciated highway facilities from current revenues. As a result, there has grown up a great backlog of needed highway improvements.

Failure to carry on restoration of depreciated facilities with current revenues has brought about a truly great and serious problem today. In fact, the failure to restore depreciated highway facilities is retarding the economic expansion of the entire country. Attention has been called many times to the fact that there has been a heavy increase in highway revenues, but *little has been said about the increase in highway maintenance costs which, in most states, has absorbed all or at least a large part of the increase in revenues.*

Maintenance Considerations

One of the most serious aspects of the maintenance question has to do with the sizes and weights of vehicles operating over our roads. . . Many commercial carriers operating over the nation's highways have criticized highway officials for not advocating greater weights and dimensions. The highway officials, whose responsibility it is to preserve the 30-odd billion dollar investment in highways and to insure, in so far as possible, the maximum economic life of these roads, manifestly are looking to the public interest.

Not even the special interests of the advocates of increased loads can be served by placing on our highways loads that cause their early destruction. There is a balance between economy in transportation cost derived from heavier unit loads and rapidly mounting maintenance and renewal costs that are brought about by heavier loads. The A.A.S.H.O. national standard is as nearly at this balance as present knowledge allows.

It is granted that it is possible to build a road capable of sustaining almost any load that can be placed upon it by motor vehicles, but *it is not at all possible to finance, with present revenue, the building of such roads, nor does the industry that advocates permitting such loads upon the highways indicate any desire to pay the increased cost made necessary by the increase in size and weights of motor vehicles.* We must further recognize that the vast mileage of roads in use today was built 10, 15, 20 or more years ago to a standard which did not contemplate even the loads permitted by the A.A.S.H.O. recommendations, and it is manifestly impossible to finance their replacement with heavier construction except over a long period of time.

Road Use Primary Factor in Damage

The advocates of larger and heavier vehicles allege that roads are destroyed by action of the elements and that heavy loads have little or no effect. Damage by weather is certainly a factor and in some cases perhaps the most important factor, but *primarily it is use, or in many cases abuse, and the repetition of heavy loads that finishes the process of destruction.*

The cost of highway construction increases as volume of traffic and weight and size of individual vehicles making up this traffic increase. This is true as to practically all factors entering into cost, such as width, alinement, limiting gradient, and especially strength.

Revenue must be provided to pay those costs and *payment should be proportional to the facilities required by each class of road user.* The fallacy of the arguments . . . that minimum standards for highways are not controlled by weight is obvious. *Man is not able to repeal the law of gravity.*

The bulk of motor vehicles are passenger cars. At present the total registration is approximately 40,600,000 vehicles, of which about 7,300,000 are trucks and buses. Ninety percent of the trucks are designed to carry loads of a ton and a half or less. *It thus becomes apparent that state highway departments are required to build a heavy system of roads for a relatively few vehicles.* Therefore, the problem of sizes and weights is brought about largely through a very small percentage of the vehicles operating over the nation's highways—roughly, about 2 per cent.

The destructive effect of the repetition of loads, particularly on pavements, became apparent during the second world war due to the great amount of heavy traffic handled over the highways. The amount and character of this traffic has increased since the war, and *the effects of heavy, repeated loadings are seen everywhere.* It is truly a major problem in the nation today. Indeed, it is doubtful if we are gaining at all—rather, it is probable that we are slipping behind in the building of an adequate road system needed for the rapidly growing economy of the United States. It is, perhaps, time to pause and consider the practical aspects of this problem.

OVERLOADS INJURE ROADS AND ARE MENACE TO SAFETY

Louisiana's highways are being pounded to death by inconsiderate operators of overloaded heavy trucks, whose regulation under existing conditions is almost impossible.

Like many other states, Louisiana has a comparatively old system of major highways. They were designed to take the impact of the loads that were common 15 years ago; not the excessive drubbing they get today from immoderate speeds and illegal overweights . . .

Because Louisiana does not have the money to rebuild its $500,000,000 road system almost entirely to meet the demands of increasing heavy-traffic damage, the state has imposed load restrictions. As in other states, our limitations on width, length and axle-weight conform generally to the pattern suggested by the American Association of State Highway Officials. It is true that some states are more liberal, but Louisiana allows almost as much freedom as any state, and more than the majority.

Some of us in the department of highways suspect that our regulations are a little too generous. Our studies, and those made in other states, point out that we are building and maintaining heavy-traffic roads for only two per cent of the nation's vehicles. That is a pretty large expenditure for such a small segment of the traffic. . . .

It is necessary that milk be hauled by truck into some cities. But it is definitely NOT necessary that the trucks be overloaded. Louisiana limits its trucks to 18,000 lb. per axle, under a recently-enacted law. That weight is just about the top limit that most of our present roads can bear, most engineers agree. It is even possible that 18,000 lb. may be too high. *But even considering that nine tons comprise a "safe" load, there remains the major problem of control. Eighteen thousand lb. on the statute-books is not* 18,000 *on the road surface.*

Louisiana maintains weighing stations on most of her major roads, and they certainly have some salutary effect. Yet, a recent loadometer check has indicated that almost ten per cent of all commercial vehicles are overweight.

(Among the five-axle tractor-semitrailers, however, 44 per cent were overloaded. And this figure included ALL the vehicles in that class, of which approximately 45 per cent were weighed EMPTY. So it is safe to say that ALMOST EVERY LOADED VEHICLE in the class was violating the weight law!)

Nor did the overloaded vehicles show permits for "urgent necessity" or "unnecessary hardship." A great percentage of the overloads were such divisible commodities as crated eggs, tulip bulbs, cased canned goods. . .

The immense volume of heavy traffic—especially the rising curve of truck-passenger ratio—is a serious concern for our engineers. Damage to the paved surfaces has consistently increased during the last dozen years. On some routes in our state, concrete surfaces that were neglected during the war years are deteriorating faster than we can reconstruct them. One recent project illustrates this alarming disintegration. *A special reconstruction crew was formed to patch, seal, mudjack and replace damaged slabs on a high-traffic road. Special equipment was put in operation so that the work could be completed quickly, under traffic. Yet, the job was almost doubled by the breakage that occurred while the repairs were being made! . . .*

Many of us believe that we can, and should, salvage as much of our half-billion-dollar investment as possible. . . . *We believe that a road designed for 18,000-lb. axle loads can withstand a great number of loads of that weight—at the proper speed, of course—but that only a very few greater loads will be a destructive force. We have already determined that, once strained by a critical load, the slab cannot even withstand an* 18,000-*lb. load.*

Basically, then, we believe that the damaging impact of heavy axle loads is the result of two factors: weight and speed. . . .

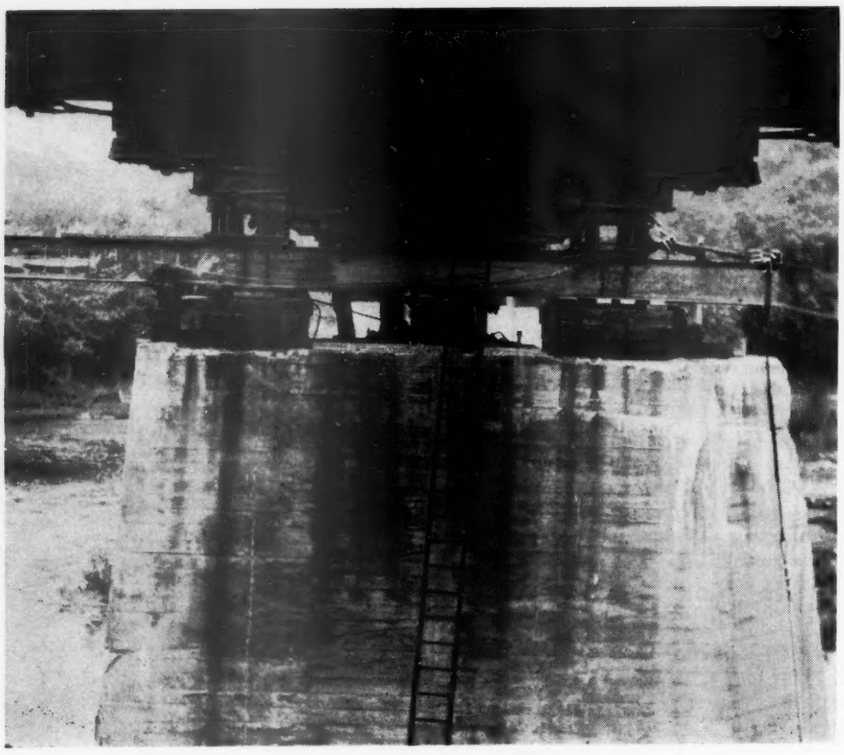
Violations are destroying our roads, and are a menace to highway safety.

These are not dreamy opinions, arrived at while following a heavy truck on a rainy day. They were not thought up to explain why mud shot 20 feet into the air when an overloaded van crossed an expansion joint. There is much evidence—direct and incontrovertible evidence—of highway destruction by immoderate axle loads. *There can be little doubt that there exists a direct relationship between load and damage. Nor that speed adds to the damage, especially after initial breaks have made the surface uneven.*

The decision confronting the highway builder today, then, is the limit to which we can go in redesigning trunk-line roads (at additional cost) to carry heavy loads for a reasonable time at a reasonable maintenance cost. It is generally agreed that the cost of constructing high-type pavement suitable for passenger and light commercial vehicles is about the same, but that the costs rise sharply as the loads increase. . . .

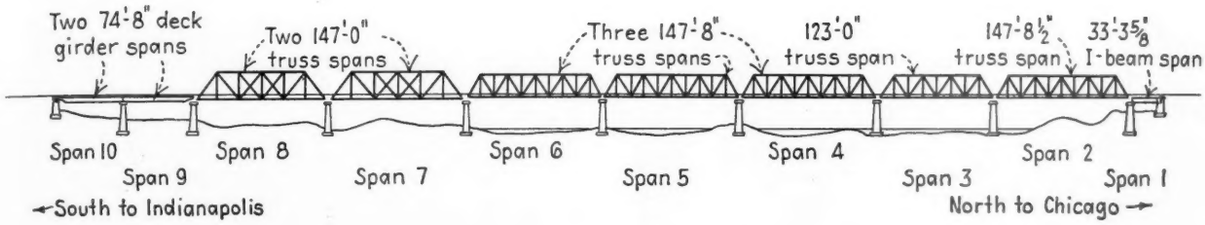
—From an address to the Southeastern Association of State Highway Officials at Little Rock, Ark., by N. E. Lant, chief engineer of the Louisiana State Department of Highways, as reprinted in the department's publication, Louisiana Highways. Emphasis by author.

DISMANTLING A LARGE BRIDGE th

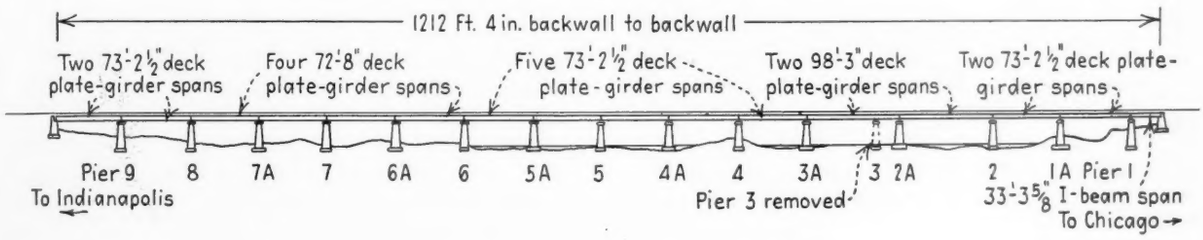


Above—Truss span No. 5 (foreground) of the Monon's Wabash River bridge as it appeared supported on launching beams on the morning of its last day in railroad service. Shoes have been placed on top of the new intermediate pier in readiness to receive the new deck plate-girder spans

Left—One of the launching beams. Pedestals of the truss span are shown resting on roller nests for moving the span to the left. A tie-down cable fixed to the right end of the beam prevented tipping



Above—Elevation of the Wabash River bridge before its replacement with deck-girder spans. Below—Elevation of the structure after new intermediate piers had been built and new deck plate-girder spans had been erected



When replacing its structure across the Wabash river, the Monon effected considerable savings by simply dumping the old truss spans overboard

GE the easy way

By adopting an unusual procedure in renewing its truss bridge across the Wabash river near Delphi, Ind., the Monon carried out the project for an outlay of only 10 per cent of the cost of a new bridge on a different alinement. Briefly, the procedure followed consisted of dropping the old truss spans into the river one by one, by the use of launching beams, replacing them with deck plate-girder spans about half as long as the original spans. The whole project cost only about $300,000, whereas an expenditure of approximately $3 million would have been required to build a new bridge on a new alinement.

Why Renewal Was Necessary

This bridge is located on the road's Chicago-Indianapolis main line. The old structure was a single-track bridge 1,212 ft. long, and consisted of seven pin-connected through-truss spans flanked at the north end by a 33-ft. I-beam approach span over a public road, and at the south end by two 75-ft deck plate-girder spans. With one exception the spans were erected in 1892 and 1905 and were designed for Cooper's loadings of E-37 and E-40. The exception was the short I-beam span, which, erected in 1909, was designed for an E-50 loading. The structure was supported on nine piers and two U-type abutments, all founded on rock and all constructed of coursed ashlar limestone. Base of rail ranged from 25 ft. to 46 ft. above the ground line.

The old structure was not capable of carrying present-day traffic loads without troublesome speed restrictions. Because of its age, its light design and rather steep grades across it, the bridge could not be economically strengthened and maintained to the standards demanded by present operating requirements. Thus, outright renewal of at least the superstructure was indicated. The fact that the worn condition of the steel in the structure left little value in it except as scrap led to the adoption of the plan to drop the old spans to one side, regardless of what damage might occur to them, to make way for deck-girder spans of half the lengths of the old truss spans. This procedure was attractive because the new spans could be installed with only one erecting crane and without falsework, thus effecting a substantial saving. In adopting this plan, it was also decided to establish a uniform grade of 0.53 per cent across the bridge and the approaches, as compared with the previous maximum of 1.68 per cent.

The installation of shorter spans required the construction of new intermediate piers between the old truss-supporting piers. These piers, 34 ft. to 39 ft. in height, were built of reinforced concrete and were constructed in three pourings, using the Prepakt method in which the coarse aggregate is placed and tamped in the forms and is then solidified by injecting cement grout under pressure. This work was begun in September, 1948, and the last new pier was completed in August, 1949.

Meanwhile, the old structure was raised on blocking and wedges to the new grade, and the bridge seats of the old piers were altered to adapt them to receive the new deck-girder spans. After completing the bridge-seat

Left—Truss span No. 5 on its way into the river. It had been rolled to the ends of the launching beams, after which the tie-down cable was cut. Right—Lying ignominiously on its side, the truss span will now be cut into pieces and pulled out of the river

alterations, the old piers were strengthened by pressure grouting.

The renewal of the superstructure was carried out in eight major operations — one for each of the seven truss spans and another for replacing the two southerly girder spans. The work was commenced at the south end and progressed northerly, except that the replacement of spans No. 3 and No. 4 (see illustrations showing elevations) was accomplished last. These spans were each made 98 ft. 3 in. long to comply with a stipulation of the Indiana Flood Control Commission. This necessitated the abandonment of old pier No. 3 as a support for the new girder spans and the construction of a new pier (No. 2A) 25 ft. to the north.

About seven working days were required for the preparatory work required prior to the launching of each truss span. This work included jacking up the ends of the span, the insertion of a launching beam and two roller nests under each end, and the lashing of these beams to the piers; setting up pulling hoists and launching rigging; setting new anchor bolts and shoes; and the removal of alternate bridge ties -- all of which was done under traffic. Also, outrigger grillages were placed in position for the crane at the end of one of the adjacent spans.

All of the new girder spans, except the two 98-ft. 3-in. spans, were shipped to Delphi as complete units. Four of the spans weighed 42 tons each, and nine weighed 43 tons each. Only one erecting crane was used for installing them, which necessitated that the crane pick up its load, swing it through an angle of 180 deg., and then reach out to place it in final position. The 150-ton steam locomotive crane used had a 65-ft. boom and a counterweight. Because of their greater weight and length, the 98-ft. spans were assembled and riveted in the field.

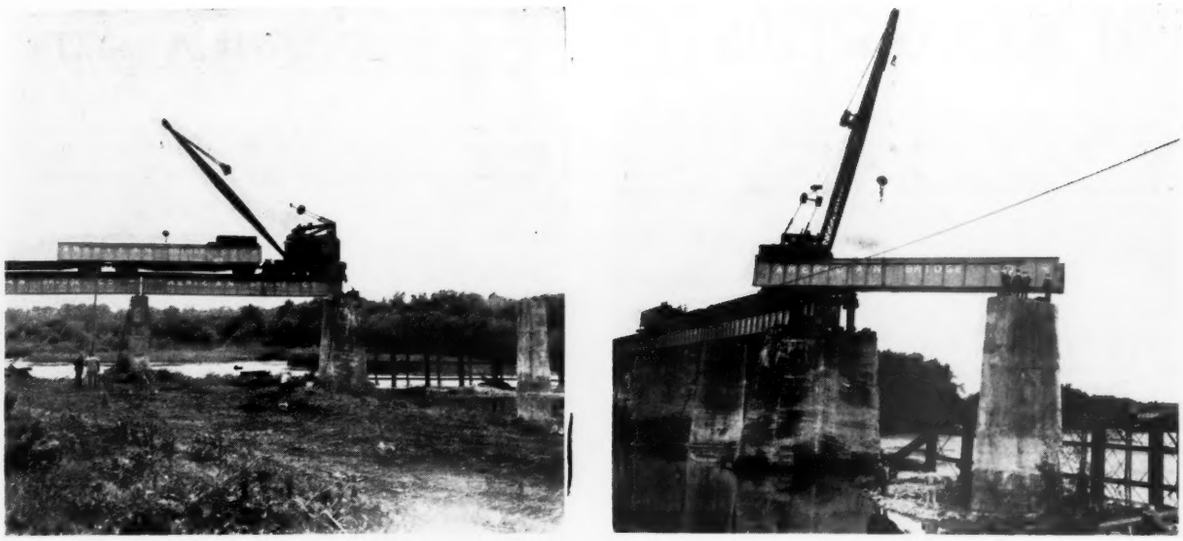
All the bridge ties for each assembled span, weighing a total of about eight tons, were stacked on the crane end of the span, thus shortening the reach necessary for the crane. The crane test-lifted the spans from the flat cars on which they were loaded so that slings could be properly located to pick them up, holding them in a horizontal position.

One Tie-Down Cable Holds Span

The launching beams were of prime importance as they not only had to support the truss spans until the day of launching, but also had to function as cantilever beams when a span was moved laterally to the downstream side before being launched. Each launching beam was 40 ft. long and was fabricated from two 21-in. CB sections placed on 12-in. centers and tied together laterally. The top of each of the beams served as a track for the two roller nests, 10 ft. long, which were inserted on the day of launching, along with truss-roller plates, by jacking up the truss ends. A steel angle was bolted crosswise at each end of the launching beam to serve as a stop for the rollers and prevent the span from rolling off prematurely. The stop on the launching end permitted the rollers to carry the span 14 ft. laterally, or until the longitudinal centerline of the span was 11 in. beyond the fulcrum point, this point being approximately the downstream edge of the pier top.

A clever yet simple arrangement was worked out for dropping the spans. The upstream ends of the two launching beams under each span were lashed together by means of shackles, turnbuckles and a single $\frac{7}{8}$-in. wire cable. The cable passed through blocks securely fastened to each pier about 3 ft. above the ground or water level. In other words, this one tie-down line prevented both launching beams from tipping while they were in cantilever service.

Two gasoline engine hoists, each pulling on a $\frac{3}{8}$-in. tugging line running through a double-sheave block anchored to a shoe of the adjacent span, were used to move each truss span laterally on the launching beams. Initial impetus was given by a 25-ton hydraulic



Left—With the truss span out of the way, the locomotive crane picked up the first deck-girder span and swung it 180 deg. to place it in final position. All the bridge ties for this span were stored at one end to change the point of balance and shorten the reach of the crane. Right—Men on the ground assisted in guiding the new span into place by lines fastened to the ends

jack at each end of the span, which was bolted to the top of the launching beam so as to bear against the roller nest on the upstream side. Chalk marks were made at one-foot intervals on one side of each launching beam to serve as a guide for obtaining equal lateral movement at each end of the truss span. To prevent fouling, large steel baffle plates were inserted between the span to be moved and adjacent ones.

The truss span was then rolled out to and stopped at the overturning position with its center of gravity 11 in. beyond the fulcrum, after which the hydraulic jacks and the stop angles on the downstream ends were removed from the beams. When this had been done and all workmen were in the clear, a welder with a cutting torch severed the tie-down cable near the center of the span, permitting it to drop into the river on its side. The welder, sometimes with the help of the crane, later cut the old span into pieces which could be dragged to shore by a line fastened to a crawler tractor working on dry ground, where they were cut up at leisure into smaller sizes for loading as scrap. At the time the old spans were being cut up, the water in the river was not over four feet deep, and no great difficulty was experienced by the welder in this work.

Working Schedule

Usually the track was taken out of service for approximately 6 hr. 45 min. in carrying out the procedure involved in launching one of the old spans and in replacing it with two new girder spans. The work was started in the morning about 9:45 a.m., shortly after the passage of the road's northbound "Tippecanoe" and a way freight. This schedule made it necessary to detour the southbound "Tippecanoe" which normally passes over the bridge at 11:25 a.m., but it did not conflict with the schedules of the northbound and southbound "Hoosiers," which are evening trains. Usually the first girder span was in place before lunch time, and the second girder was in place and the track restored to traffic, at 4:30 p. m.

Each of the new spans was erected by this same procedure, with the exception of those replacing spans No. 3 and No. 4, where, because of the construction of new pier No. 2A, only one of the 98-ft. girder spans and a short temporary 25-ft. girder span were placed when span No. 3 was launched; and then the temporary span was removed and the other 98-ft. girder span and one 78-ft. girder span were placed when span No. 4 was launched. This latter truss span was launched and the girder spans were placed on November 8, 1949. The long girder spans were field assembled with fitting bolts and pins. The replacement of truss spans No. 3 and No. 4 required, in each case, uninterrupted use of the track for about the same length of time as for the replacement of the other truss spans. Final steps included the field riveting of the long girder spans, and the painting of the entire structure. The project was completed in December.

The method used for disposing of the old spans and erecting the new girder spans was worked out jointly by the engineering departments of the Monon and the American Bridge Company. All field engineering was handled by the railroad under the general direction of L. F. Racine, chief engineer, and under the direct supervision of A. B. Wang, resident engineer. R. F. Hill, bridge and building supervisor, was also actively engaged in the work. The design and erection of the new structure were handled by the American Bridge Company under the general direction of A. P. Boysen, division engineer, A. A. Porter, manager of erection, and G. W. Faulkner, erecting engineer, while the erection work was carried out under the direct supervision of J. T. Ellis, field superintendent.

[A more detailed description of the procedure involved in launching one of the truss spans and replacing it with two girder spans appears in the February issue of *Railway Engineering and Maintenance.*]

HOT WATER SPEEDS DE-ICING OF "REEFERS"

The Pacific Fruit Express has cut by two-thirds the time required to rid refrigerator cars of ice remnants prior to installation of heaters, a big job in the fall and winter months. As a result of experimentation carried on since 1943, P.F.E. has developed a system wherein water at 190 deg. F. is played on the ice dregs, quickly melting them. The run-off pours out through the car drains into concrete gutters flanking the cleaning tracks.

The hot water system has been established at North Platte, Neb., on the Union Pacific, where westbound refrigerator cars from Omaha, Neb., and Kansas City, Mo., via Marysville, Kan., are concentrated. Here "reefers" are cleaned prior to movement westward for return loaded movement with heater service throughout the winter season. The North Platte installation consists of a 15,000-gal. storage tank supplied from three boilers in the P.F.E. ice plant. Sufficient hot water is available to supply 40 gal. a minute to each of five hose outlets which accommodate 40 cars — 20 each on adjacent cleaning tracks. With 100-ft. lengths of hose, workmen may either enter the car doors to remove body ice, or reach the top of the cars to clean end bunkers.

O. I. Larsen, assistant general manager of P.F.E., estimates that the hot water method cuts the average man-hours required to clean a refrigerator car from three to one. It is possible for one man to clean more than one car at a time by dropping a running hose into an end bunker and moving on to another car while the stream of hot water flushes away the ice. The hot water method is proving more advantageous than the use of steam, which works satisfactorily when directed into the confined area of the bunkers but is less efficient in the large areas of the car body. Condensation has not been a serious factor since the cleaning operation is of short duration — 5 to 25 min. a car.

There is a considerable safety advantage to the hot water system. The danger of falling ice, ever-present in manual removal, is obviated. It is not necessary for cleaners to enter the bunkers, and no ice is thrown about.

Substitution of the hot water system for hand chopping, particularly in and under floor racks, has eliminated damage to the equipment.

A workman directs a flow of hot water into the end bunker of a refrigerator car to clear it of ice. O. I. Larsen, right, assistant general manager of Pacific Fruit Express, and P. S. Tooy, P.F.E. plant manager at North Platte, Neb., look on. Before installation of the hot water system, it would have been necessary for the car cleaner to descend into the bunker and toss out the ice by hand

Water at 190 deg. is used to melt away the remains of body ice in a Pacific Fruit Express "reefer" at the company's new cleaning installation at North Platte, Neb. The new system is proving quicker, safer, and easier on equipment than the prior scooping-chopping method

Communications . . .

Transportation Courses at M.I.T.

CAMBRIDGE, MASS.

TO THE EDITOR:

I was interested in the article, "Most U. S. Colleges Shun Railroad Engineering," by Paul J. Claffey, which appeared in *Railway Age* of December 17, 1949. Three years ago a subcommittee of the Committee on Cooperative Relations with Universities of the American Railway Engineering Association made a similar study of transportation subjects offered in the engineering colleges of the country. The results of Mr. Claffey's study are in substantial agreement with the facts developed by this A. R. E. A. subcommittee.

The writer appreciates the amount of work involved in preparing a detailed tabulation of subjects by individual colleges, such as Mr. Claffey included in his article, and recognizes that, in view of the difficulties presented in making a precise classification of subjects based on catalog titles and descriptions, it is perhaps not unnatural that a few omissions should occur.

In this connection, attention is called to corrections which should be made in the data as to transportation subjects available at the Massachusetts Institute of Technology. In the table, M. I. T. is shown as offering only one subject in general transportation engineering, one in route engineering, and one in highway finance and administration. Actually, the following subjects are offered in the transportation field, as shown in the current catalog: Route surveying fieldwork (at surveying camp); route and construction surveys; transportation planning; two terms of transportation engineering; and highways and airports. These are all undergraduate subjects and are given regularly. The following graduate subjects are also offered: Airport design; two terms of advanced highway transportation; and two terms of advanced railway transportation. The graduate subjects in airports and highways are given regularly; the advanced railway subjects are given when desired by a sufficient group of qualified students (about every third year).

Mr. Claffey calls attention to the fact that "general transportation courses taught in 29 of the schools embrace instruction on problems of all major types of transport, brief description of each, and a study of their interrelationship and coordination," and continues, that "it is evident that for their size and the extent of their engineering operations and number of engineers employed, the railroads are not adequately treated in the technical schools."

Emphasizing again the difficulty of classifying such courses by catalog title or description, I point out further, for example, that at M. I. T. the transportation engineering courses consist of two 15-week terms. Three lectures are given each week along with three hours of design. The content includes railways, highways and airports, with a brief treatment of the competitive aspects of water and pipe line transport. About 40 per cent of the work in these two subjects is devoted to the railway field. These courses were adopted many years ago in substitution for individual courses in railway engineering and in highway engineering in the belief that a student interested in any phase of transportation should take a well-rounded program covering all aspects of transportation engineering.

Mr. Claffey has done a valuable piece of work in showing the present situation with respect to railway courses currently offered in U. S. engineering colleges. I have presented this additional data regarding transportation subjects at M. I. T. in order to give a more complete picture of our work in the field of transportation engineering.

J. B. BABCOCK
Professor of Railway Engineering,
Massachusetts Institute of Technology

Plain Journal Improvements

CAPE MAY, N. J.

TO THE EDITOR:

I note the article "Hot Journals," page 14, in the January 14 issue of *Railway Age*.

Frequent articles on this timely subject have had some excellent suggestions for improvement. Mr. J. R. Jackson, mechanical engineer, A. A. R., and others have some suggested improvements that merit trial.

Why not start with some of these good suggestions and test three or four journal box designs in service to determine if one standard, waste lubricated, plain journal can be made dependable?

Suggestion: (1) collarless journal; (2) thrust block inside lid; (3) 25 per cent wool waste in packing; (4) packing retainer; (5) new box, water seal inside; new box, lid bolted on; new box, lid with oil plug at maximum oil level; (6) stench or smoke bomb to give alarm if lubrication fails.

Opening box lids and setting up packing, so called, has caused more trouble than it ever prevented.

FRANK S. ROBBINS
Retired General Superintendent Motive Power,
Atlantic Coast Line

Steam-Locomotive Performance

ROANOKE, VA.

TO THE EDITOR:

I read with much interest your editorial entitled "Where Some Big Money Can Be Saved," in the December 24, 1949, issue of Railway Age. As you so aptly pointed out, money saved on work done by steam locomotives is just as useful for paying bills and dividends as that saved by Diesel power.

In the last paragraph of your editorial, it is mentioned that: "The Class A freight locomotives exceed 200 miles per day and turn in a performance in g.t.m. per hour which is some four times that of the national average for steam locomotives."

The average daily mileage, excluding unserviceable and stored days, of the Class A locomotives is nearer 300 than 200. The actual average daily mileage made during the year 1948 was 286, and the average in the first 11 months of 1949 was 291 per day.

R. G. HENLEY
General Superintendent Motive Power,
Norfolk & Western

New and Improved Products of the Manufacturers

Baker Electric Fork Trucks

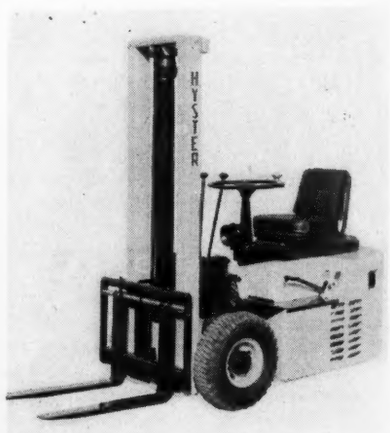
Just announced by the Baker Industrial Truck Division of the Baker-Raulang Company, 1250 W. 80th st., Cleveland 2, Ohio, is a new model electric fork truck, manufactured in capacities of 3,000 and 4,000 lb. This new model has center control. Its unit-welded, heavy gage, all-steel frame contains an integral hydraulic tank. Heavy formed channels welded into a unit assembly form the upright guides.

Except for the outside widths and the sizes of tires for the driving wheels, and of course, the battery recommended for use, specifications are the same for the two different capacity trucks. Outside turning radius is 73 in., free lift 63 in. and telescoping lift 126 in. The trucks are said to be able to make a right angle turn in 89½ in. plus the length of the load on the forks. Weight of the 3,000 lb. model, with battery, is approximately 6,600 lb. while the 4,000 lb. model tips the scale at about 7,500 lb. Width over drive wheel is 35¼ in. for the lighter model and 37¼ in. for the heavier.

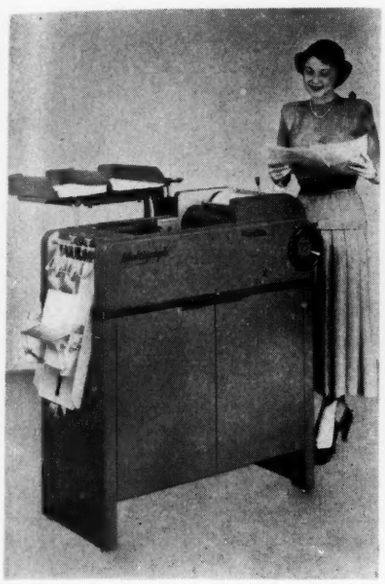
Dead man control is provided for, while a circuit in the controller makes it impossible for the operator to reverse the motor while the truck is in motion. Five speeds are available, as selected on a foot-controlled accelerator.

DiesElectric Locomotive Crane

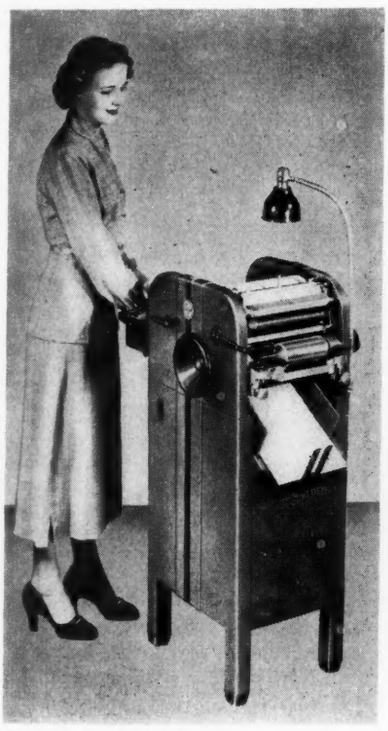
The American Hoist & Derrick Co., St. Paul, Minn., has announced a new 25-ton DiesElectric locomotive crane, designated as the Model 825 DE, in which, according to the company, thousands of pounds of wearing parts have been eliminated, resulting in sharply reduced maintenance costs. All deck operations of the crane are powered directly by the Diesel engine. Travel is accomplished by electric motors which drive the truck axles through reduction spur gears and pinions. Features of the crane include a full-vision cab, enclosed roller-bearing turntable, finger-tip air controls, a clean, efficient deck layout, and anti-friction bearings. The maximum travel speed of the crane is 10¾ m.p.h.

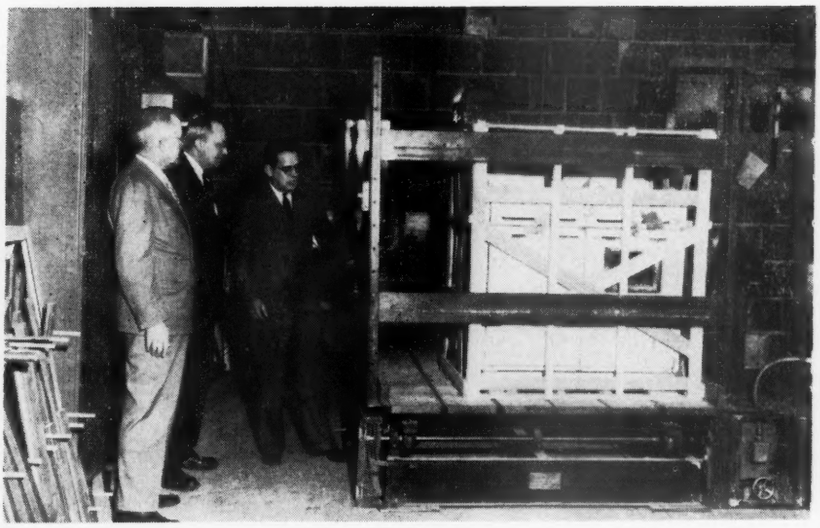


A new 1-ton capacity fork truck is the Hyster Company's (Portland, Ore.) latest addition to its line of materials handling equipment. Maximum capacity is obtainable when the load center is 15 in. from the heel of the forks. Standard height of lift is 9 ft. Wheelbase is 45 in. Shipping weight is approximately 3,620 lb. Maximum speed obtainable is reported as 13.7 m.p.h.



Two new models of multigraph machines were announced recently by Addressograph-Multigraph Corporation, 1200 Babbitt road, Cleveland 17, Ohio. Model 75 (top) features a continuous-load vacuum feeder on which the feed table has been designed to fit almost vertically into the left side of the machine, in order to conserve floor space. Model 80 (below) has been designed so that consecutive feeding of different sizes and weights of paper and cards is possible





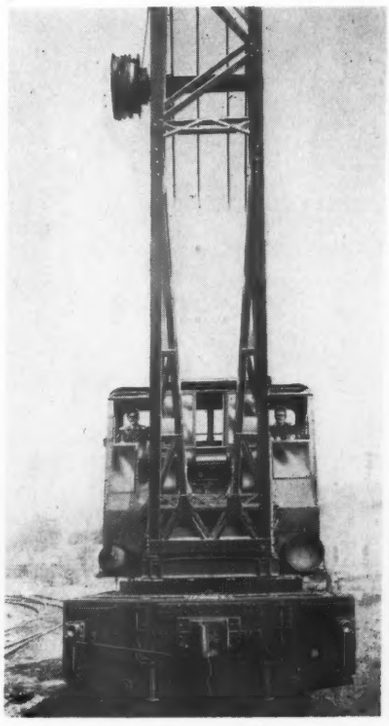
Members of the Porcelain Enamel Institute have devel ped a safe transit program which consists of a number of tests designed to put packaged products through handling similar to that received in shipment. One of the tests is made on the machine pictured above, a package tester, which creates a pitch and toss motion similar to conditions created by rough track, bad freight car trucks, etc. After passing this and other tests the member company's products are entitled to a safe transit label, which indicates that the packaged product has fulfilled requirements which should enable it to get to destination damage-free. The picture above shows the package tester in the plant of the George D. Roper Corporation, Rockford, Ill., manufacturer of gas ranges, whose products are entitled to the safe transit label

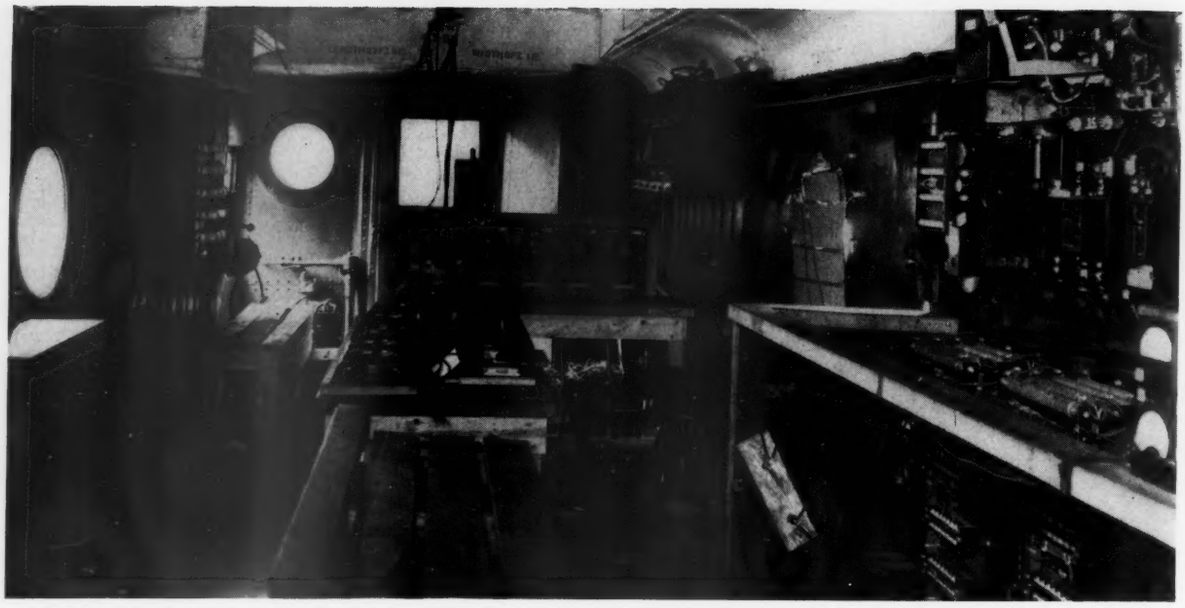
Dual-Control Crane

A Diesel-operated locomotive crane for railroad maintenance-of-way work, which is said to provide a range of operator vision so extensive that the need for ground men to give directions is eliminated, has been announced by the Industrial Brownhoist Corporation, Bay City, Mich. The wide range of vision has been made possible by setting the cab high on the crane, extending it entirely across the width of the crane, and providing two sets of interlocking controls in the cab, one set at each side.

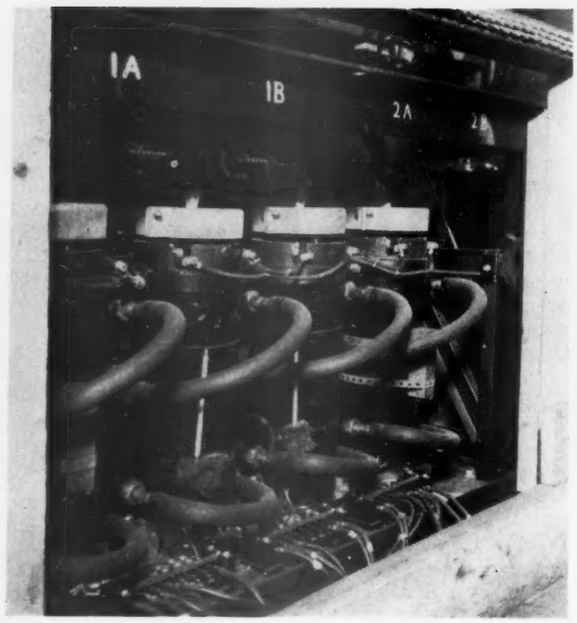
This arrangement gives the operator full rear vision and permits him to look down into a car while loading or unloading it. The dual controls permit him to operate the crane from the side that gives him the best view of the work. For work on the right side of the track, for example, he can use the controls on the right side of the cab. If the work shifts to the left side of the track, the operator locks the right-side controls and moves over to the controls on the left side, never leaving the cab. For work requiring special safety precautions, both sets of controls can be left open to permit the crane to be operated by two men, one at each side.

The new machine is known as the maintenance-of-way crane. Three of them, each with a capacity of 30 tons, were recently delivered to a large eastern railroad. Each of these models is equipped with a 50-ft. open-type boom that gives the operator maximum vision when the boom is directly in line with the work. Each has three travel speeds, with a maximum of 13 m.p.h. All the cranes are equipped for hook, clamshell or magnet work.





Above—Test equipment in the experimental railway car. Below—Ignitron rectifier in the car



RAILWAY D. C. MOTIVE POWER FROM A. C. TROLLEYS

An experimental railway car equipped by the Westinghouse Electric Corporation with d.c. series traction motors supplied from an a.c. trolley is now in revenue service on the lines of a large eastern electrified railroad. Sealed ignitron tubes rectify the trolley current for the motors. The new system combines the advantages of high-voltage a.c. transmission of power with the superior characteristics of d.c. low-voltage series motors for traction. Tests to date show no difficulties from tubes misfiring due to motion of the car or troubles caused by ripples in the rectified current.

Direct-current series traction motors are more easily controlled than a.c. motors, have superior tractive force, use less space, have lower weight for the same power, and require less maintenance.

May Have Significant Effects

Interurban railroad electrification has always been a compromise between the necessity to use high-voltage alternating current in transmitting large blocks of power over the distances involved and the more desirable characteristics of low-voltage direct current for motive power.

A rectifier car was first equipped by Westinghouse with a mercury-arc rectifier in 1913. Multi-anode, pumped-type rectifiers were used, but drawbacks became apparent at that state of development for the mercury-arc rectifier. Development of sealed-tube ignitrons overcame these limitations and reawakened interest in use of rectifiers for railway motive power.

An ignitron car or locomotive can be designed to run interchangeably in 25- or 60-cycle trolley zones or could be used on lines involving both a.c. and d.c. zones.

The car must undergo a substantial test period before final conclusions can be drawn. However, if successful, the scheme of utilizing d.c. traction motors supplied with a.c. power via rectifiers could have significant effects on both existing and future electrification of railways.

A Glimpse of the Trans-Australian

Every Tuesday, Thursday and Saturday, the "Trans-Australian Express" steams out of Kalgoorlie for its 1,108-mi. run across half a continent. A day and a half, and 33 stops, later it pulls into Port Pirie — having traversed in the meantime a 330-mi. stretch of track without a single curve, the world's longest railway tangent, and the hot, treeless, 100,000-sq.-mi. Nullarbor Plain, so level that the railway grade is only one foot in 100 mi.

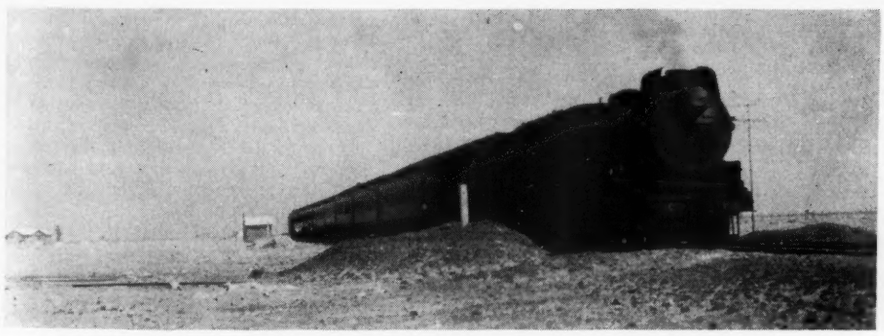
The Trans-Australian railway was surveyed in 1908 and 1909; authorized in 1911; begun at Port Augusta in 1912, and completed at Ooldea on October 17, 1917, at a total cost of just over $20 million. It was subsequently extended to its present eastern terminus at Port Pirie, and is now part of a 2,694-mi. line between Sydney and Perth. Of this line, only the Trans-Australian and New South Wales sections are standard 4-ft. 8½-in. gage, so that through passengers have to change trains at three "break-of-gage" points — Kalgoorlie, Port Pirie and Albury. A long-term plan to standardize Australian railway gages was evolved at the close of World War II, and preliminary surveys have since been under way.

Between Port Pirie and Kalgoorlie, water supplies for locomotives have to be obtained from wells and dams, with treating plants required at several places. Drinking water has to be hauled to many points, while the railway operates a weekly "tea and sugar" train to bring regular supplies of fresh food and other necessities to railroad employees at isolated settlements.

Above — Trees again — as the eastbound "Trans-Australian Express" leaves the Nullarbor Plain. The low vegetation to the left is saltbush and bluebush

Right — A ton at a time, coal is loaded into the locomotive tender at Cook, on the Nullarbor Plain. The tender, built especially for the long hauls involved in crossing Australia, holds 17½ tons of coal, enough for 570 mi., and 12,180 gal. of water, enough for 184 mi.

Photos and map courtesy of Australian News and Information Bureau, New York



Left — Only movement on the Nullarbor Plain is the "Trans-Australian Express," shown here passing a small desert settlement

Below — The route of the Trans-Australian. Double lines indicate east-west highway

GENERAL NEWS

Comments on Mail-Pay Case Hit by Mitchell

I.C.C. member challenges Faricy remarks, Railway Age editorial

Interstate Commerce Commissioner Richard F. Mitchell said on January 26 that President William T. Faricy of the Association of American Railroads recently made an "inaccurate" statement about the pending mail-pay case, and that recent *Railway Age* editorial comment on the case comprised "a very unfair and unjust charge against the commission." As to the latter, Mr. Mitchell added that, "by the way, that charge should be against me, not the commission, because I have done everything that has been done here."

The commissioner, to whom the mail-pay case is assigned for administrative handling, spoke from the bench where he was sitting with his colleagues to hear oral argument on the railroads' latest interim-increase motion. That motion asks the commission to raise the interim mail-pay increase from the present 25 per cent to 60 per cent, and thus extend to the carriers a substantial measure of additional relief pending final action on their application for a permanent advance of 95 per cent. The request for the latter is the result of several amendments to an application, filed on February 19, 1947, which originally sought a permanent increase of 45 per cent.

Faricy Statement Questioned

Guernsey Orcutt, general attorney of the Pennsylvania and counsel for the Committee on Railway Mail Transportation, was presenting his argument in support of the motion's request for hearing on the interim-increase proposal when Commissioner Mitchell broke in to make this record:

COMMISSIONER MITCHELL: Now, Mr. Orcutt, I want to straighten out some things. Mr. Faricy, in a statement that he issued either in December of last year, the end of the year, or early in January, as I read his statement, blames this commission for the failure of the railroads to make a proper return upon invested capital, due to the fact that we didn't give you another interim increase. In *Railway Age* of recent date is a very unfair and unjust charge against the commission; and by the way, that charge should be against me, not the commission, because I have done everything that has been done here. Now isn't it a fact that the railroads never made a move to bring on this second interim increase, until December 5, 1949.

MR. ORCUTT: That is absolutely correct.

COMMISSIONER MITCHELL: So this commission could not have granted you any relief from the time we did grant you, or you didn't request any relief, until December 5, 1949?

MR. ORCUTT: That is entirely correct.

COMMISSIONER MITCHELL: So Mr. Faricy is inaccurate in his charge?

MR. ORCUTT: I haven't read the charge, but from your statement I would say yes.

COMMISSIONER MITCHELL: It has been published all over the country.

MR. ORCUTT: As I said, when I filed the motion last March, at the time I filed it, I wrote a letter asking the commission to set it down for hearing immediately. Before they had a chance to do that, I called the commission on the telephone, because of the meeting we were going to have with the [railread] presidents and the postmaster general.

COMMISSIONER MITCHELL: This commission isn't responsible for whatever meeting between the presidents and the postmaster general was had. We had nothing to do with that. What I am resenting is the charge of the railroads that this commission is responsible for the failure to get this increase.

MR. ORCUTT: You are entirely correct, Mr. Commissioner. That is not of interest to the commission. I was citing that merely as the reason for my immediate request to the commission to disregard my request to set the motion for hearing and withhold it and not set it until I took the matter up further with them. And they did that, so any delay during the year 1949 of the commission assigning the matter for hearing is entirely chargeable to the railroads. There is no question about that. I didn't know that anyone had any different feeling about it.

COMMISSIONER MITCHELL: I don't know whether you control that, but it speaks the language of the railroad—an unjust and unfair statement.

MR. ORCUTT: I am sure I have no control over it. If I did, I would assure you that such a statement would not be in it.

The foregoing indicates that the Faricy statement which Commissioner Mitchell had in mind was the A.A.R. president's year-end review of 1949 operations (see *Railway Age* of December 31, 1949, page 25). Mr. Faricy did not mention the commission, but listed the "failure to obtain compensatory rates for handling mail" as one of the reasons for the "disappointingly low return" which the railroads realized last year.

Reaction to Editorial

The *Railway Age* editorial comment on the case was included in the January 21 issue's leading editorial, entitled "One Motor Manufacturer Earns More than the Entire Railroad Industry." The editorial said in part:

"Every move of the railroads to eradicate with compensatory rates their $373 million deficit in the handling of their 'head-end' traffic has met with active resistance and interminable delaying tactics on the part of lawyers acting in the name of the Post Office Department — and by caution, scarcely distinguishable from complete paralysis, on the part of the Interstate Commerce Commission. Meantime—while unquestionable power lies in the Interstate Commerce Commission to eradicate the 'head-end' deficit overnight, by a flick of the pen—individual commissioners are going around making speeches and writing articles, lecturing the railroads for their overall passenger service deficit of a half-billion dollars; and admonishing them to do something about it."

In addition to making the record quoted above, Commissioner Mitchell referred to the *Railway Age* editorial again. This was somewhat later, as the session was being brought to its close with Mr. Orcutt's rebuttal of arguments that had been made on behalf of the Post Office Department. The railroad attorney was urging prompt action on the motion when this colloquy took place:

COMMISSIONER MITCHELL: We must hold a hearing. We must have evidence that will justify the finding that we put in this report, mustn't we?

MR. ORCUTT: Absolutely, Mr. Commissioner.

COMMISSIONER MITCHELL: You don't believe, like this man who wrote this article does, that overnight, by a flick of the pen, we could correct this situation?

"Privately owned taxpaying railroads cannot live alongside government owned and tax free or subsidized other forms of transportation. . . . The issue we face is between free enterprise, with fair competition, and fettered enterprise, with unfair competition under big government.

"The greatest hurdle of the railroads is the inequality of treatment in legislation, taxation and subsidy of our competition—the trucks, air lines, etc. . . . When it snows around your house, you clear it away at your expense. It likewise snows on railroad property and we clear it away entirely at our expense. When it snows on the highways so the buses and trucks cannot get through, the buses and trucks do not clear it away. It is plowed by the counties, cities and towns, entirely at your expense and mine, and at no expense to the buses and trucks."

—From an address by L. J. Shields, general car service agent, New York Central, to the Rotary Club of Batavia, N. Y.

Do you believe we have to hold a hearing?

MR. ORCUTT: Well, I think so; if there is any such procedure as that I am lax.

COMMISSIONER MITCHELL: That is what this man says we could do.

MR. ORCUTT: I am lax for not having invoked it, I think. I know of no such procedure as that, of course. What I mean, Mr. Commissioner, to illustrate, we are asking for an increase of 95 per cent. To grant an increase of 35 per cent interim, the commission does not have to have heard evidence upon the entire amount of the increase we expect to get ultimately.

COMMISSIONER MITCHELL: That might be correct, but there certainly would have to be evidence to justify that 35 per cent.

MR. ORCUTT: Certainly there would have to be.

COMMISSIONER MITCHELL: And that could take a considerable time in hearing.

Would Set Aside Interim Increase

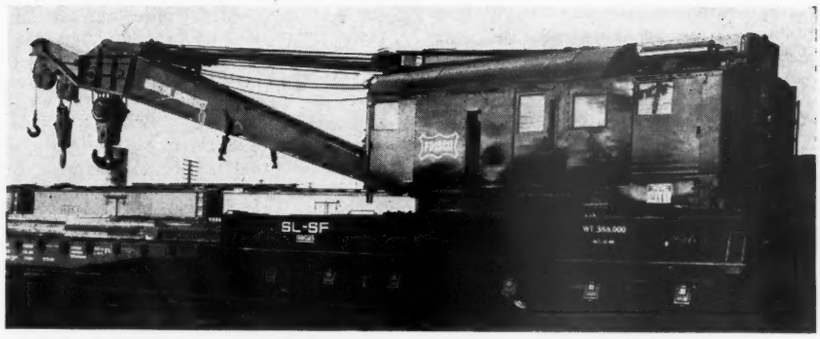
The argument was on the question of whether the commission should consider the interim-increase motion and hold a hearing on it. It was the position of the Post Office Department that the commission lacks authority under the mail-pay act to grant interim increases. That argument was made by the department's associate solicitor. Arne C. Wiprud, who was formerly a member of the Department of Justice's antitrust staff. Mr. Wiprud was supported by Morton Liftin, who presented the Justice Department's argument on the motion.

Mr. Liftin revealed that the postmaster general had recently requested the Justice Department to "initiate action" to have set aside the present interim increase of 25 per cent which the commission granted in December, 1947. His department, Mr. Liftin said, is "convinced" that the interim-increase order exceeded the authority of the commission under the mail-pay act; but it is still studying the "possible effect of the two-year delay in challenging the validity" of the order.

Meanwhile, Mr. Orcutt had argued that the railroads were entitled, "as a matter of right," to a hearing on the motion. He said that costs of handling the mail had increased "tremendously" since the present interim increase was granted; and he insisted that the railroads were entitled to relief in view of the outlook which indicated that there would not be a final decision in the case until March, 1952, at the earliest.

As to the legal questions raised by Messrs. Wiprud and Liftin, Mr. Orcutt insisted that the commission has "full authority" to grant interim increases. He noted that it had done so in numerous cases, including "this very proceeding." The contention that the railroads will eventually get the money, because the increase finally awarded will be retroactive, "merely begs the question," Mr. Orcutt said. Retroactive payment, he added, "does not carry interest, and it does not compensate for funds currently used, and which might have been used to discharge interest-bearing debt were it not for the fact that the deficit resulting from performing the mail service for the government has to be met."

By an order dated January 9, the commission denied petitions wherein the Post Office Department asked that the present interim increase be suspended, unless what the department regarded as essential supporting evidence was produced by the carriers. The denial was "without prejudice to a renewal of the request on good cause shown after the results of the joint study made by the parties of station mail labor costs have been presented at the further hearings to be held in this proceeding."



This 250-ton Diesel-powered derrick—second one of its size ever manufactured by the Industrial Brownhoist Corporation, Bay City, Mich.—has been delivered to the St. Louis-San Francisco to replace a 160-ton derrick. The new unit, which is to be located at Springfield, Mo., is of the fluid drive, self-propelling type. It weighs 388,000 lb., and is fitted with two 275-hp. engines capable of lifting 250 tons each. By using both engines the speed of lift is increased. Overall length of the car on which the derrick is mounted is 39 ft.

Would O.K. Express Apportionment Plan

Examiner favors scheme; would reject eastern roads complaint

Examiner Howard Hosmer has recommended in a proposed report that the Interstate Commerce Commission approve the Railway Express Agency's present plan for apportionment of its revenues among individual railroads. At the same time, the examiner would have the commission find that good cause had not been shown for an order requiring modifications sought by eastern railroads in the basis for distributing revenue from express traffic to the four territorial groups of roads.

The proposed report is in the No. 29769 proceeding, an investigation instituted by the commission on its own motion in April, 1947, to determine whether the apportionment plan conformed to requirements of the Interstate Commerce Act. Also involved are two reopened proceedings, Finance Dockets Nos. 7322 and 7316, wherein the commission's 1929 decisions approved the railroads' ownership and control of the Express Agency and the pooling arrangements for handling express traffic under the 25-year Express Operations Agreement, which expires February 28, 1954.

The "Economy Plan"

The apportionment plan, which Examiner Hosmer would have the commission approve, is the so-called "economy plan" that has been in effect since July 1, 1938. It involves the allocation of interline express revenue by use of percentages based on actual movements during a test period which was the year ended May 31, 1938. This eliminates much of the accounting expense incurred under the previous plan of determining the allocation by a check of individual waybills. Evidence in the case indicated that 1947 operating expenses would have been some $12 million higher than they were if the previous plan had been in effect that year.

The commission's order instituting its investigation of the "economy plan" came as an aftermath of the Ex Parte 163 express-rate case of 1946. It was at hearings in that proceeding that the plan first came to the attention of the commission in a formal way. In its report in the proceeding, the commission took occasion to note that it had received no application for modification of its 1929 orders to accord the "economy plan" approval thereunder. An application was then filed by R.E.A., and the commission's order of investigation followed a few months later (see *Railway Age* of May 3, 1947, page 914).

In recommending that the plan be approved, Examiner Hosmer noted that the economy reflected in it was the basis of the only opposition voiced at the hearing. An officer of the Brotherhood of Railway Clerks testified that 391 clerical positions were abolished when the plan was adopted in 1938; and that, as of 1947, R.E.A. had about 1,000 fewer accounting positions than it would

have required under the old system. From "all the available evidence," the proposed report said, the plan "appears to have worked well for 12 years."

Would Change Revenue Distribution Basis

Mr. Hosmer then turned to his consideration of the eastern roads' complaint against the present basis for distributing the revenue from express traffic to the four territorial groups of roads, i.e., eastern, southern, western, and mountain-Pacific. The eastern roads want to modify provisions relating to the deduction of express operating expenses which is now on a territorial basis. They would have the countrywide total of expenses deducted from the countrywide total of R.E.A. revenues, and the net amount then allocated to the four territorial groups for distribution to the individual lines.

The present plan, the eastern roads contend, is unfair because the express operating expenses in their territory have increased relatively more than in other territories. Their specific request is that the commission modify its 1929 orders to require incorporation of their proposal into the express contract. In recommending the finding that good cause had not been shown for entry of such a supplemental order, Examiner Hosmer said that a determination of what changes should be made in the territorial-distribution arrangement would be a "major" problem—"even if it were clear, as it is not, that the commission has the statutory power to make such a determination."

"This proceeding [the proposed report also said] furnishes another manifestation of what appears to be the current view on the part of the railroads that the express business is a kind of unwanted child which does not earn its keep. This feeling is most acute in the eastern group. . . .The railroads also appear to have different conceptions of the nature of the agency. Those in the eastern district look upon it as a distinct and unified transportation system of nationwide scope, while others think of it as merely an agent to which the individual railroads have delegated certain functions required in handling what is essentially their own express traffic. . . .

"In substance, the eastern lines seek revision of each of the uniform contracts which the agency now has with the participating railroads because of unforeseen circumstances which have arisen since the contracts were made. The only means of compulsion on the part of the commission to that end would be withdrawal of its approval of the present group pooling, which, however, in practical effect would be enlarged into nationwide pooling. . . .Such a change could not be forced upon the railroads without their assent, and the result might well be to precipitate an immediate crisis in the entire express enterprise. It is perhaps more likely that the southern and western railroads would undertake to have such a decision set aside on the ground that it rested upon an erroneous interpretation of the statute.

"Either of these consequences would be undesirable at a time when the future of the express business is obscure. Its problems will require careful and prolonged study in the four remaining years of the present arrangement. . . which would not be furthered by simultaneous litigation in the courts on a tenuous legal point. . ."

The proposed report closes with a suggestion that the proceedings be kept open after the present issues are disposed of, for the purpose of passing upon a petition filed by R.E.A. on March 31, 1949. That petition asks the commission to make a specific determination to the effect that its approval of the pooling arrangements for handling express traffic included approval of the so-called "exclusive provisions" of the Express Operations Agreement. Those provisions are the ones which name R.E.A. as the exclusive agent of each contracting railroad in the conduct of express business, and under which each road agrees not to transport competing traffic on passenger, mail or express trains. The filing of the petition was regarded as a maneuver calculated to remove the basis for the Department of Justice's pending antitrust complaint against R.E.A. (see *Railway Age* of April 9, 1949, page 65).

Here Is an Example

Recently engineers announced that the Lincoln highway bridge over the Hackensack [river] has been so badly weakened by the continual pounding of heavy trucks that it must be replaced—at taxpayers' expense—at a cost of many millions of dollars. Similar conditions are developing in other states.

To make the matter worse, trucking companies in many instances are flouting state weight limits which are already excessive. Last week, as a perfect example, a Philadelphia trailer-truck rolled across the Totowa-Little Falls bridge. As the truck reached the bank, the bridge collapsed, leaving the trailer suspended over the wrecked span.

The capacity of the bridge was clearly marked. It was eight tons, which is 16,000 pounds. Truck, trailer and cargo weighed a total of 88,000 pounds, a preliminary check showed. The cargo alone, 15 tons of alum, exceeded the stated capacity of the bridge, and the total exceeded the 60,000-pound limit permitted on any New Jersey highway or bridge. Thus there was a double violation.

The result is a ruined bridge. Who will pay for its replacement? Not the trucker, even though he ruined it. He and his driver may be fined for overloading, but not enough to pay for the damage. That will be up to the taxpayers, long the victims of exploitation by the trailer-trucking industry. Persistent overloading, such flagrant violations as hauling forbidden explosives through tunnels, trucks expanding to the size of railroad cars, and the inadequacy of present taxes on these mammoths, all present serious questions of public policy that must be answered soon.

—An editorial in the Newark, N. J., Sunday News, January 29.

P. R. R. Revamps L. C. L. Service

Improvements and innovations will meet shippers' needs

Widespread improvements and innovations in its merchandise freight service, designed "to give merchandise shippers a complete, modern, expedited service, fully meeting their needs," were announced by the Pennsylvania on January 31.

The purpose, according to Walter S. Franklin, P.R.R. president, is "to fully restore the high type of service for less-than-carload freight provided by the Pennsylvania before the war and to improve it wherever possible." "Plans have been under way for some time . . . and this kind of service is immediately available," Mr. Franklin said, adding that:

"The necessities of the war and post-war periods made it impossible for us to maintain that quality of fast, up-to-date merchandise service which we wanted to provide. Our organization and plant, however, have now been geared to provide this type of service and to maintain it with full efficiency and dependability. We anticipate, of course, that the regulatory bodies will give us fair treatment in pricing it."

Nature of Improvements

The specific improvements which will be reflected in the more than 2,000 merchandise freight-car lines through which the P.R.R. serves every important community in its territory, include:

Installation of more than 500 box cars of greater than average capacity specially equipped for merchandise and package freight, and with special devices designed to eliminate the possibility of damage to lading.

A fleet of 3,000 large-capacity merchandise containers, carried on flat cars, to provide to shippers in smaller communities the same type of service available to those in larger, "full box car" points.

Intensified pick-up and delivery service.

Augmented use of truck to move freight between central locations in larger cities and shipper destinations in surrounding communities, to eliminate box-car and truck handling through suburban freight stations.

Operation of some 225 line-haul motor truck routes to replace some local freight trains in movement of merchandise freight to and from points beyond direct box-car lines and limits of door-to-door truck pick-up and delivery. This line-haul truck fleet, radiating from 132 terminals, will cover approximately 8,500 mi. per day.

Distinctive marking of merchandise cars with blue tags bearing in red the road's keystone emblem and the words "L. C. L. Merchandise," to assist em-

ployees in expediting handling of such cars.

Extensive mechanization of freight stations, with power-operated lift trucks, tractor-drawn trailers, power-operated flat trucks and special pallets.

Distribution through 50 merchandise bureaus in as many cities of pamphlets showing complete schedules and rates between larger points, and other information about the service.

Expansion of merchandise bureau activity to furnish assistance to shippers, so that merchandise will be routed so as to insure fastest delivery.

Tracing of shipments and estimating of arrival time through Teletype communication between the bureaus and freight yards and important stations.

Special training of personnel.

Hearings on 12 Reparations Cases Will Begin May 15

The Interstate Commerce Commission has set May 15 as the date on which its Division 4 will begin a series of hearings at Washington, D. C., on 12 of the 17 reparations cases which arose out of complaints whereby the Department of Justice is seeking to recover alleged overcharges it claims the railroads made on the government's shipments of various commodities during World War II. The other five cases are already in the hearing stage, the next hearing on them being scheduled for March 20, when the Justice Department is expected to present its rebuttal of evidence that has been offered by the railroads (see *Railway Age* of December 10, 1949, page 60).

More Railroad Strikes

A strike on February 1 of 600 Conemaugh & Black Lick employees, all members of the C.I.O.'s steelworkers union, stopped operations of the railroad and forced a shutdown of the Bethlehem Steel Company's Johnstown, Pa., plant. The work stoppage was attributed to the alleged posting of signs by the railroad saying that a social insurance program was being discontinued.

A strike of operating employees has been called for February 16 against the New York, Ontario & Western (see Financial news, page 68).

9-Car Train Backs Down Grade Six Miles Without Engine Crew

The eastbound "Olympian Hiawatha" of the Chicago, Milwaukee, St. Paul & Pacific, on January 29, backed down a 1.7 per cent grade near Renslow, Wash., minus its engineman and fireman, who had left their posts to extinguish a fire in a motor under the cab of the Bi-Polar type electric locomotive. The train had been halted on the incline for over an hour, during which time air leaked out of the brake system. The locomotive bumped the cars and, despite the handbrakes having already been set, the train backed down the incline and reached a speed of approximately 35 m.p.h.

The crew apparently did not have time to climb aboard the locomotive. The train, with about 200 passengers, proceeded backward for six miles, coming to a halt one mile east of Kittitas, Wash. There were no injuries or damages.

To Appeal Rail-Barge Decision

It is understood that the railroads will appeal to the Supreme Court the order of a three-judge federal court in Chicago wherein was upheld the Interstate Commerce Commission order requiring railroads and water carriers on the inland waterways to establish through routes with joint rail-water rates reflecting differentials under all-rail rates (See *Railway Age* of January 21, page 46). The railroads contend that the I.C.C. order compels them to give up to their competitors certain traffic which would normally move via all-rail routes in the absence of such lower or so-called differential joint rail-barge rates as prescribed by the commission.

C.&N.W. Asks 25 Per Cent Commutation Fare Increase

The Chicago & North Western has filed petitions with both the Interstate Commerce Commission and the Illinois Commerce Commission seeking a basic increase of 25 per cent in the price of its commutation tickets, to become effective on February 21. As noted in the *Railway Age* of January 28, page 46, the fare boost is intended to help offset North Western suburban service losses which amounted to more than $3,000,000 in 1949. The Illinois Central has also notified its customers of an impending commutation increase, and expects to file for the higher fares before the end of February.

C. & O. Track Worker Awarded Carnegie Medal

Edward Ray Irish, a 63-year-old Chesapeake & Ohio track worker, has been awarded a bronze medal and $500 by the Carnegie Hero Fund Commission for the rescue of a 21-month-old boy from in front of a passenger train, an act which also brought him a medal of honor from President Truman last October and a $500 savings bond from the C. & O.

As reported in the *Railway Age* of January 8, 1949, page 260, Mr. Irish was working on the C. & O.'s right-of-way at Blackmar, Mich., on October 13, 1947, when he saw Gerald Wayne Wilson crawl onto the track. He raced 200 ft. to snatch up the child and fall back into a ditch just as the train reached the spot.

I. M. Peters, Head of Perfect Shipping Campaigns, Dies

Irving M. Peters, traffic manager of the Corn Products Refining Company, Chicago, and head for the past four years of the "Perfect Shipping Month" campaigns, died at Swedish Covenant hospital in Chicago on January 25, following an illness of several days. At the time of his death he was serving his fourth consecutive term as chairman of the National Management Committee on perfect shipping for the National Association of Shippers Advisory Boards.

Mr. Peters was born at Chicago on December 25, 1886, and started his career as secretary to the superintendent of the Crystal Car Line. He was associated for a time with the Chicago, Peoria & Western (now discontinued), before joining Corn Products as a messenger boy. He was appointed traffic manager at Chicago in 1942. Mr. Peters was a past general chairman of the Mid-West Shippers Advisory Board and past president of the Car Department Officers Association.

Irving M. Peters

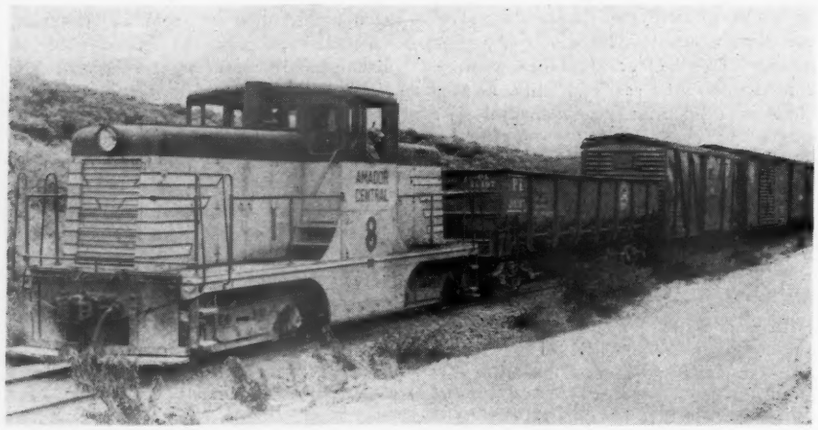
More Money on Hand

An error occurred in the table published on page 6 of the *Railway Age* of January 7, entitled Changes in Cash and Current Assets of Individual Large Railroads. The Minneapolis, St. Paul & Sault Ste. Marie had cash and temporary cash investments as of September 30, 1949, amounting to $10,539,542, instead of $3,998,365, as shown in the table, a decrease as compared with 1948 of 21.3 per cent instead of 70 per cent.

Five-Day Week Cuts Grand Central Traffic

Increasing observance of the five-day week, and the consequent reduction in Saturday commuter travel, accounted for more than 11 per cent of the total drop of 4,224,378 passengers using New York's Grand Central Terminal in 1949 as compared with 1948, according to a recent statement by E. B. Moorhouse, terminal manager.

Terminal traffic in 1949 totaled 56,050,192 passengers, against 60,274,570 in 1948, an overall decrease of 7 per cent. The number of long-distance passengers was 13.1 per cent less, while the number of commutation-suburban pas-



An estimated saving of better than $3.25 an hour is reported to have resulted from use of this 44-ton American Locomotive-General Electric Diesel-electric locomotive operating over the Amador Central in California. The figure was estimated as the result of a comparison made recently by the A.C. when it was necessary to substitute an old steam locomotive while the Diesel-electric was shopped for a week to have its wheels turned and minor repair work done. The saving, it was said, has been realized despite an estimated 30 per cent increase in operating cost between 1944 and 1948

sengers fell off by 3.8 per cent, from 39,481,056 to 37,988,714. The Saturday loss in the latter categories was 472,918.

Expenses of operating the terminal, which is shared by the New York Central and the New York, New Haven & Hartford, are now more than $11 million per year, Mr. Moorhouse said.

Argument on Express Agency Rate Boost Set for Feb. 21

The Interstate Commerce Commission has named February 21 as the date on which it will hear oral argument in Ex Parte No. 169, the case in which the Railway Express Agency seeks a rate increase of 10 per cent. The argument will be held in Washington. D. C.

In a proposed report, Examiners Samuel R. Diamondson and Charles W. Berry have recommended that the I.C.C. approve the increase. (See *Railway Age* of January 14, page 39).

Transportation Corps Board Names Civilian Associates

Twenty-three representatives of transportation and allied industries have accepted associate membership to the Transportation Corps Board, the research and development agency for the Army Transportation Corps. This was announced in a January 26 statement by the Department of Defense, which went on to explain that the board "determines the effectiveness of equipment and methods for the Transportation Corps, and conducts all necessary engineering and service tests ordered by the Office of the Chief of Transportation."

The 23 newly designated associate members include: J. H. Aydelott, vice-president, Operations and Maintenance Department, Association of American Railroads; V. R. Hawthorne, executive vice-chairman, Mechanical Division, A.A.R.; J. M. Symes, vice-president—operation, Pennsylvania; John E. Dixon, president, Lima-Hamilton Corporation; Charles J. Hardy, Jr., president, American Car & Foundry Co.; C. R. Osborn, vice-president, General Motors Corporation, and general manager of its Electro-Motive Division; and Harry A. Winne, vice-president, General Electric Company.

"The associate members," the announcement also said, "will communicate directly with the president of the Transportation Corps Board in the exchange of ideas concerning programs and projects under study by the board, and will serve as a source of information on commercial transportation practices."

Radio Averts Train Crash With Truck on Crossing

The Denver & Rio Grande Western's end-to-end radio and train-to-wayside inductive communication system, coupled with the cool-headedness of a telephone lineman and dispatcher, has been credited with preventing a freight train-truck crash which might have been disastrous, according to the January 15 issue of the road's newspaper, "Green Light."

The incident began when a lineman for the Mountain States Telephone & Telegraph Co. stalled his truck on a D.&R.G.W. crossing at Princeton, Colo., about 37 mi. north of Salida. Unable to move the vehicle, he climbed a pole, connected a phone to his company's wires, and contacted the train dispatcher at Salida. The dispatcher told the lineman to flag the train, and then contacted the conductor in the caboose of the train over the train-to-wayside inductive communication link to warn him about the truck ahead. The conductor, in turn, notified the engineer by end-to-end radio, and the train was stopped upon the lineman's flag signal within a few yards of the stalled truck, which the crew assisted in pushing off the crossing.

U. P. to Convert More Coal-Burning Locomotives to Oil

To insure operations of the Union Pacific against continued harassments and shutdowns in its Wyoming coal mining properties. A. E. Stoddard, president, has ordered immediate conversion of 35 to 40 more coal-burning locomotives to oil. Mr. Stoddard said: "We are going to operate the Union Pacific whether we operate coal mines or not and, faced with these continued 'off again-on again shenanigans,' I have but one course and that is simply to convert more coal-burning locomotives to oil." The U. P. president said that the three-day work week restrictions, augmented by "what appears to be continued harassments and shutdowns," leave the company with no assurance of even one or two days a week operations in the mines.

Loss, Damage Down 8.6 Per Cent

During the first six months of 1949, U. S. railroads reported loss and damage amounting to $61,008,872, compared with $66,711,882 for the same period of 1948, a decrease of 8.6 per cent. Freight revenues during the same period decreased 5.2 per cent, according to the Freight Claim Division, Association of American Railroads.

The following were the causes of loss and damage, by percentages:

Unlocated loss	
Entire package	6.3
Other than entire package	5.1
Unlocated damage	
Freight in packages	41.7
Freight not in packages	11.9
Improper handling in trains, yards and stations	3.1
Defective or unfit equipment	5.1
Temperature failures	
Improper refrigeration or ventilation	0.8
Freezing or heater failure	1.0
Delay	6.0
Theft	
Entire package	0.9
Other than entire package	0.8
Concealed loss	0.2
Concealed damage	12.0
Train accidents	3.7
Fire, marine and catastrophes	0.7
Error of employee	0.7
	100.0

Record Exhibit Assured During September Conventions

Interest already manifested by railway supply companies in the exhibit to be held at Chicago in September by the Track Supply Association and the Bridge & Building Supply Men's Association indicates that this exhibit will be the largest ever sponsored by these associations. It will take place during the concurrent, but separate, conventions of the Roadmasters' & Maintenance of Way Association and the American Railway Bridge & Building Association, which

will be held at Chicago, September 18-20. Applications have already been received from 66 firms which will occupy 165 booths, which is in excess of space used in any past exhibit of these associations. Companies from which applications have been received include six that have never exhibited before.

Supply companies interested in participating should address requests for information to Lewis Thomas, director of exhibits, 59 E. Van Buren street, Chicago.

Issue Fourth Valuation Report On Railroad Retirement System

The level tax rate needed to support the railroad retirement system indefinitely is 12.72 per cent of payroll, which approximates the present rate of 12.42 per cent, the Railroad Retirement Board reports in a summary of its fourth actuarial valuation. In the January issue of its "Monthly Review," the board gives what it considers the significant findings of the valuation study. At the same time, it emphasizes that large reserves are necessary to prevent future increases in the tax rates; and that these reserves are not a surplus which can be drawn upon to increase benefit levels.

This latest valuation, made as of December 31, 1947, is required by the Retirement Act, which stipulates that such valuations be made at intervals of not more than three years. The purpose of the studies, says the board, is "to determine the liabilities of the retirement system and calculate as nearly as possible the combined tax rate on employees and their employers which, together with interest from investments, will be sufficient to meet all obligations of the system indefinitely."

The retirement system financing schedule—wherein the same tax rate applies to earnings of all employees, regardless of age, occupation, length of previous service or other individual characteristics—makes an allowance for the accumulation of fairly large reserves. In this connection, the board comments:

"It is anticipated that in the not very distant future the annual benefit payments will grow larger than the annual tax collections. The additional income then needed to supplement the regular income from payroll taxes will come from interest on the accumulated reserves, which are being invested in special United States government securities."

The 12.72 per cent tax rate figure arrived at is a net figure, after making a deduction for funds on hand and including a charge for administrative expenses. Although computed as of December 31, 1947, the rate takes full account of the 20 per cent increase in retirement benefits and new residual payments introduced by 1948 amendments.

Commenting on the deficiency of 0.3 per cent in the present rate (12.42 per cent, compared with 12.72 per cent), the board states:

"The cost figure developed in the valuation is not precise and is subject to an error either way considerably in excess of 0.3 per cent of payroll. Under very favorable conditions, the actual level cost of the railroad retirement system may turn out to be only 12 per cent of payroll, or even less. Under extremely unfavorable conditions, the level cost may go up to 14 per cent of payroll, or even higher. In view of this margin of possible error, the small deficiency in the present tax rate need not be viewed with concern. For all intents and purposes, the valuation showed that the existing tax schedule is adequate."

In connection with the retirement system liabilities, the board said:

"The liabilities on account of benefits to active employees who worked in 1947 come close to $10 billion. The liabilities on account of benefits to inactive employees, retired employees, and survivors of retired and deceased employees, are almost $2.8 billion. Results of later studies, not included in the valuation report itself, showed that the total liabiliy on account of all service performed before 1948 comes up to the very large figure of $7.3 billion, while the funds on hand were less than $1.2 billion. Thus, the reserves fell about $6 billion short of the liabilities on account of service already credited. By the end of 1949 the balance in the railroad retirement account was well over $2 billion. However, the liabilities on account of service performed through the end of 1949 will also have increased well above the $7.3 billion figure mentioned before. It therefore becomes obvious that the balance in the account is not a surplus which can be drawn upon to increase benefits."

Aside from the summary of the actuarial valuation, the January "Review" pointed out that more railroad workers received sickness benefits in the fiscal year 1948-49 than in 1947-48, even though the amount of sickness among railroad workers showed no marked increase. Of the 155,200 beneficiaries in 1948-49, 151,200 were paid for sickness other than maternity. The beneficiaries in this group were sick for an average of 69 days and were paid an average of $188 in benefits. The 4,000 maternity beneficiaries, on the average, received $517 for 111 days.

RR Advertising Men Told How S.F. Slashed Timetable Costs

Inauguration by the Atchison, Topeka & Santa Fe in 1948 of two separate timetables—an easy-to-read "traveler's" edition and a "ticket agent" edition—has cut the road's annual timetable expenditure almost in half, A. A. Dailey, Santa Fe general advertising manager, declared in an address at Chicago on January 20. The speaker told members of the Association of Railroad Advertising Managers, meeting on January 20-21, that, prior to the timetable innovation, it was necessary to print 1,750,000 of the 68-page system folders to meet the needs

RR Suppliers Launch "Grass Roots" Attack on Socialism

Some 50 supervisors of the Chicago & Eastern Illinois, who gathered at Danville, Ill., on January 26, listened attentively as a railway supply executive told them of the world-wide "conflict of ideas" which has the "American way of life" grappling for supremacy over the idea that the "individual has no dignity and is of no importance except as he exists to serve the state." John F. Corcoran, assistant to vice-president of the American Locomotive Company, addressed the "freedom meeting," which was attended also by several other railway supply executives and a representative of *Railway Age*. C. & E. I. officers subsequently reported that a number of the supervisors credited the meeting with "starting them to think" about the evils of socialism.

The Danville meeting was the first to be sponsored entirely by Chicago railway supply men, who responded to a plea for action by the publisher of this paper in an address before their oganization on December 28 (see *Railway Age* of December 31, 1949, pages 29 and 48). The suppliers plan other meetings of this type within the railroad industry.

Mr. Corcoran pointed out that freedom forums are being held throughout the country, with the purposes of: (1) identifying encroaching socialism—communism; (2) pointing out the superiority of the "American way of life"; and (3) defending and preserving the "American way of life". The important thing, he declared, is to remember that "never in the history of the world has any country, once it started down the road to socialism, ever turned back and restored its democratic form of government; instead, it ceased to exist!"

Continuing, Mr. Corcoran said: "The socialists realize that if a complete socialistic program were to be presented to the American people it would be wholeheartedly rejected.

"Their strategy, therefore, is that of nibbling. If they can successfully nibble at our economic system, they will have eventually swallowed our entire 'American way of life'—political and economic—and they can never be forced to disgorge it. In pursuing their policy of nibbling, the socialists advertise their measures as improvements to our 'American way of life' and deny they are socialistic in intent. This is the same pattern followed so successfully in England."

The speaker said that advocates of the following measures are, deliberately or unwittingly, helping to inflict us with the creeping paralysis of socialism: The Spence bill to give the president "emergency" powers over the national economy; expansion of social security; socialized medicine; and the Brannan Plan, which seeks to lower prices to consumers by direct subsidies to farmers.

of both ticket agents and passengers. In 1949, he stated, the road needed to print only about 240,000 of the system folders for exclusive distribution among all railroad ticket agents and some 1,500,000 of the 24-page "Traveler's" edition.

As reported in the *Railway Age* of April 24, 1948, page 68, the "traveler's" edition shows eastbound and westbound schedules of each Santa Fe through train separately, on opposite pages, thereby requiring the passenger to read down only. Also included is information on various train connections, time of river crossings, mileage, and altitudes. Tunnels are listed, together with their length and the time trains will pass through them.

Mr. Dailey said that the Santa Fe system folder, with its many pages and ramifications, was an "instrument of confusion" and of no help to the average passenger. The problem, he added, was to devise a timetable that both ticket agent and passenger wanted, which meant the printing of two timetables.

"Our first task was to point out why our system folder (and many other railroad system folders) was so confusing to the average passenger. On studying the problem we became aware of the fact that, in many cases, the standard form of timetables adopted by most railroads is contrary to reading habits. For example, in many instances, to get the information you want it is necessary to read *up*; to read from right to left; to hunt for footnotes instead of finding them at the bottom of the page where they properly belong; and, at times, make up an itinerary of a regular scheduled through train by referring to several different pages in the timetable.

"Our new timetable has been stripped down to nothing but time schedules of our through trains, arranged to be read instead of 'figured out.' It is not a 'condensed' folder in the accepted sense of the term, as the time cards in it are as complete as those found in our system folder. It has enabled us to eliminate all the local and incidental timetables we printed in addition to our system folder. That in itself effected a big economy in our annual timetable expenditures. We also streamlined our system folder or 'ticket agent' edition, cutting it down to 48 pages."

Labor Leaders Don't Like Coal-Conservation Order

A five-man committee of the Railway Labor Executives' Association called at the Interstate Commerce Commission last week to protest against the commission's Service Order No. 845 under which railroads without more than 25 days' supply of fuel coal are required to reduce their coal-burning, passenger-service locomotive mileage by 33½ per cent. The committee, headed by R.L.E.A. Chairman H. W. Fraser, who is also president of the Order of Railway Conductors, met with Commission Chairman J. Monroe Johnson and two other members of Division 3.

Chairman Johnson said afterward that he would make no statement about the meeting; but a report on it was published in the January 28 issue of "Labor," organ of the railroad unions. That report said that Chairman Johnson had "admitted" to the R.L.E.A. committee that the commission's authority to issue the order was "nebulous," and that the railroads had asked for the order.

As to why the railroads wanted it, "Labor" supplied this explanation: "So they could avoid going before state public service commissions to petition for elimination of trains." The article also said that the matter had been explored at a meeting of R.L.E.A. where the labor leaders "charged bluntly that the manner in which Chairman Johnson had pushed through the order amounted to virtual 'dictatorship' and clear disregard of the public interest."

The labor leaders were further reported in the article as having "stressed that while rail labor did not oppose an order meeting a real emergency, this particular case was arbitrary, ill-advised and poorly-drawn." Mr. Fraser was quoted as having said that Chairman Johnson "appears to have developed a dictatorship complex during the war," and is now "trying to override state commissions and develop a super-authority over transportation."

In response to an inquiry, Chairman Johnson this week denied that the order was either without legal grounds or constituted "dictatorship". He said, as he had before, that the order was issued to "protect freight service, if necessary, before any order cutting freight service is considered." And he suggested that, if freight service is not protected and thus has to be cut because of the coal shortage, that would "really put people out of work."

Friend Confirmed as Loco. Bureau's Assistant Director

The Senate on January 26 confirmed President Truman's appointment of James E. Friend for the position of assistant director of the Bureau of Locomotive Inspection, Interstate Commerce Commission. The nomination had been reported favorably from the Senate committee on interstate commerce on the preceding day.

Mr. Friend has been serving in the position since October 31, 1949, the President having given him a recess appointment after the previous session of Congress had adjourned without action on the nomination [see *Railway Age* of January 14, page 43.]

Robert R. Young to Study Mexican Railroad System

Robert R. Young, chairman of the board of the Chesapeake & Ohio and of the Federation for Railway Progress, is making a three-week inspection tour of Mexico's federalized railway system, in response to a personal invitation from Miguel Aleman, the president of Mexico.

Mr. Young, it is reported, will sound out Mexican officials on the prospect of purchasing Pullman cars which, while still in good condition, have been supplanted by newer cars in the postwar modernization programs of railroads in the United States.

P.R.R. Tries One-Entree Meals on "Jeffersonian"

Something new in railroad dining car service is being tried on the "Jeffersonian," the Pennsylvania's streamlined overnight coach train between New York and St. Louis, Mo. Menus on that train offer only one entree at each of the three daily meals during regular hours of service. A full course meal is served, but the single entree, the road says, so reduces the high cost of dining car operation, particularly by eliminating storage and handling of a large variety of foods, that materially reduced meal prices are possible. Breakfast on the "Jeffersonian" is 95 cents, luncheon $1.20 and dinner $1.45. A limited a la carte service at conventional prices is available in the dining car before and after regular meal hours and in the observation car at any hour during the day or evening.

The railroad distributes a pamphlet to passengers on the "Jeffersonian" informing them that the new service is experimental and that whether it is continued on the "Jeffersonian" and possibly introduced on other trains is dependent on their reaction to and acceptance of it. A table card is provided on which each passenger is asked to note his comments and observations. "The streamlined 'single entree' service on the Jeffersonian," Homes Bannard, manager of the P.R.R.'s dining car department, said, "may be one of the steps toward our goal of better food and service at lower prices, with reductions in our losses. It has definite possibilities, is one of a number of new things we are planning, and we hope the public gives it a fair trial."

Railroads Readying Box Car Supply for Wheat Movement

Advance preparations are already being made by the railroads to provide an adequate supply of box cars to meet anticipated heavy requirements during the wheat harvest in the Northwest and other harvesting regions, W. E. Callahan, manager of the Car Service Division, Association of American Railroads, declared in an address before the Northwest Shippers Advisory Board on January 26, at Minneapolis, Minn. Mr. Callahan said that "storage space seems destined to provide a major problem again this year after the harvest, and box cars will doubtless be in very heavy demand to handle old as well as new crops during the height of the season."

The speaker pointed out that another bumper agricultural crop looms as a possibility this year, despite controls on

acreage to be planted; although winter wheat has undergone a 15 per cent acreage reduction from 1949, it may produce almost as heavy a crop as last year's output. In reporting on the national transportation situation, Mr. Callahan declared that there are no car supply problems of any consequence at present.

Speaking at the board's luncheon session, Gregory S. Prince, assistant general solicitor of the Association of American Railroads, said that promotional assistance given by the government to forms of commercial transportation competing with the railroads is a major obstacle to establishment of a national transportation policy. Mr. Prince emphasized that such assistance includes not only the provision of basic facilities such as navigable waterways, public roads, airports and airways, but also direct payment of subsidies.

Regarding government provisions of highways, Mr. Prince pointed out: "Although it was generally believed that road construction of the past 30 years was of a semi-permanent nature, it has already become necessary to carry on a program of reconstruction on a majority of our highways. It is estimated by the Bureau of Public Roads that approximately $55 billion will have to be spent on highways during the next 15 years. Maintenance will cost in the neighborhood of $4 billion a year. Authorities seem to agree that the principal cause for this condition of our highways is the heavy commercial truck. There can be little doubt that there has been an enormous subsidy to such trucks if they are responsible for the virtual destruction of a large part of our highway system."

New Plan Allows Consolidation Of Grocery Shipments

A new consolidated transportation system that permits application of carload or truckload rates to less-carload or less-truckload shipments for the grocery industry was announced last week by Grocery Dispatch, Inc., an affiliate of Red Circle Freight Lines, Inc., a contract motor carrier with headquarters at 325 Spring street, New York 13.

Under the Grocery Dispatch plan, according to Reginald Narelle, vice-president of the company, "rail cars . . . may be stopped in transit . . . unloaded, segregated, combined with products of other manufacturers from the same or other origin points, reloaded into mixed cars for delivery to final destination. The contents of the mixed car, even though the individual shipments making up the car might be of l.c.l. weight, will be charged only the carload rate applicable from point of origin to final destination, plus a small charge for the stop-off privilege."

The plan is essentially similar to some now in effect between individual railroads and large individual grocery companies, but the Grocery Dispatch set-up is said to be the first time such arrangements have ever been made between different agencies of transportation, on the one hand, and a number of different grocery companies on the other.

Operations of Grocery Dispatch will be concentrated initially at Port Newark, N. J., which is served by the Pennsylvania, the Lehigh Valley and the Central of New Jersey, and is within the free lighterage limits of all trunk-line railroads serving New York; by numerous truck lines, and by various coastal, intercoastal, oceanic and inland water lines. The three railroads serving the port have filed tariffs which will permit them to cooperate with the new company, which is headed by Laurence Carroll.

Railroad Scene Included In Broadway Musical

"Miss Liberty," musical comedy by Irving Berlin, Robert E. Sherwood and Moss Hart, currently playing at New York's Imperial Theater, includes, as part of its second act, a ballet interlude featuring a railroad trip in 1885, when the Statue of Liberty was being assembled on Bedloe's island in New York harbor.

The story of the play revolves around the search made by a newspaper photographer (Eddie Albert) for the girl who was thought to have posed for the statue (Allyn McLerie), and her visit to this country as "Miss Liberty" under the auspices of a New York newspaper. The train scene, arranged by Jerome Robbins to Berlin's music, is intended to suggest the important part played by railroads in transportation of visiting celebrities.

Participants in the scene, in addition to Miss McLerie, as a passenger, include Eddie Phillips, Erik Kristen and Joseph Milan as the "train"; and Dolores Goodman, Virginia Conwell, Fred Hearn, Bob Tucker and Allen Knowles as the "reception committee" which meets it at each stop.

Reports on Productivity In Railroad Industry

The volume of railroad service—freight and passenger—provided per man-hour of work in 1948 remained at approximately the 1947 level, according to a report on "Productivity in Steam Railroad Transportation" issued by the Bureau of Labor Statistics of the U. S. Department of Labor. As the report pointed out, both traffic volume and employment declined slightly from 1947 to 1948, but remained considerably above pre-war levels.

The productivity indices used in the report are based on 1939 as 100. They show that the index of all revenue traffic per employee was 140 in 1948, when the index of revenue traffic per man-hour was 133.3. The respective figures for 1947 were 142 and 135. The 1948 index of revenue freight ton-miles per employee was 143.8, while the index of ton-miles per man-hour was 126.1. These compare, respectively, with 1947 figures of 142 and 122.5. Thus, the report pointed out, the 1948 productivity in freight operations was 3 per cent better on the basis of service per man-hour.

Meanwhile, however, the revenue passenger traffic per man-hour was down 9 per cent, the 1948 index of revenue passenger-miles per man-hour having been 149.5 as compared with 1947's 163.9. The 1948 index of revenue passenger-miles per employee was 163.2 as compared with a 1947 figure of 177.8.

Commenting on the improved showing as to freight service, the bureau observed that it had occurred "despite a 2 per cent decrease in the volume of freight carried." The report went on to suggest that "the adverse effect of declining volume of productivity was offset by favorable factors, among the most important of which was the more extensive use of Diesel-electric locomotives."

Index figures back to 1935 were given in the report. As summarized by the bureau, they showed that productivity "increased 20 per cent in the six-year period, 1935 to 1940, continuing a long upward trend." Then came the "tremendous increase" in traffic during the war years; and it "caused a jump of more than 40 per cent in man-hour output between 1940 and 1944." The 1944 index of ton-miles per man-hour was 120.5, while the index of passenger-miles per man-hour was 283.8.

"By 1946," the report also pointed out, "revenue passenger-miles per man-hour had fallen off 27 per cent from the high level of 1944 while revenue freight ton-miles per man-hour dropped approximately 4 per cent." As indicated above, the 1947 and 1948 indices of ton-miles per man-hour (122.5 and 126.1, respectively) were above the 1944 index.

In a footnote to the report, the bureau warned that the productivity data shown "do not measure the specific contribution of labor, or of capital, or of any other factor of production." The changes in the index numbers, it explained, "show the joint effect of a large number of separate, though interrelated, influences such as technological improvements, the rate of operation, the relative contributions to the volume of traffic of roads at different levels of efficiency, the skill and effort of the work force, the efficiency of management, and the state of labor relations."

Accounting Division Will Meet at Ottawa, July 31

The annual meeting of the Accounting Division, Association of American Railroads, will be held at Ottawa, Ont., from July 31 through August 3, according to a January 27 announcement from the division's chairman, George F. Glacy, vice-president of the Boston & Maine and the Maine Central. July 31 will be devoted to the usual "open-house" meetings of the division's com-

mittees, and the three-day annual meeting will open on August 1. T. H. Cooper, vice-president and comptroller of the Canadian National, is chairman of the committee on arrangements.

Freight Car Loadings

Loadings of revenue freight in the week ended January 28 totaled 636,415 cars, the Association of American Railroads announced on February 2. This was an increase of 17,465 cars, or 2.8 per cent above the previous week, a drop of 42,887 cars, or 6.3 per cent, under the corresponding week last year, and a decline of 89,930 cars, or 12.4 per cent, below the equivalent 1948 week.

Loadings of revenue freight for the week ended January 21 totaled 618,950 cars, and the summary for that week as compiled by the Car Service Division, A.A.R., follows:

REVENUE FREIGHT CAR LOADINGS
for the week ended Saturday, January 21

District	1950	1949	1948
Eastern	117,908	134,725	142,511
Allegheny	128,110	153,191	161,640
Pocahontas	44,812	60,145	66,625
Southern	112,729	125,586	130,709
Northwestern	63,903	72,084	81,401
Central Western	96,941	106,357	126,610
Southwestern	54,547	57,749	61,643
Total Western Districts	215,391	236,190	269,654
Total All Roads	618,950	709,837	771,139
Commodities:			
Grain and grain products	41,927	43,943	44,703
Livestock	9,165	10,507	9,460
Coal	114,897	158,493	181,545
Coke	12,154	15,394	15,263
Forest products	29,576	37,096	42,822
Ore	10,840	12,589	11,059
Merchandise l.c.l.	78,783	90,233	103,074
Miscellaneous	321,608	341,582	363,213
January 21	618,950	709,837	771,139
January 14	631,018	733,865	803,303
January 7	506,947	721,507	830,810
Cumulative total 3 weeks	1,756,915	2,165,209	2,410,257

In Canada.—Carloadings for the week ended January 21 totaled 64,127 cars, as compared with 65,729 cars for the previous week, and 72,212 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
January 21, 1950	64,127	28,959
January 22, 1949	72,212	32,046
Cumulative totals for Canada:		
January 21, 1950	184,274	81,188
January 22, 1949	215,656	93,834

Cost of Correcting Highway "Deficiencies"—$41 Billion

Correction of "current deficiencies on the highways, roads, and streets of the nation" would require expenditures totaling $41 billion, according to a report on "Highways and the Nation's Economy," issued by Congress' Joint Committee on the Economic Report. The estimate was based on reports received by the committee from governors and highway departments of the states.

The breakdown indicates that $23 billion of the $41 billion could be spent to correct "deficiencies" in state highways, while $10 billion could be spent on county and rural roads and $7 billion on city and village streets. The committee's interest in the matter was explained by its chairman, Senator O'Mahoney, Democrat of Wyoming, in the report's introduction, where he said:

"The committee. . . has as its basic concern the maintenance of maximum production, employment, and purchasing power in the nation. Directly related to all of these objectives is the development and maintenance of an adequate system of highways. . .A substantial portion of our labor force is employed in the construction of highways and in highway transportation, or in servicing highway transport."

In a separate statement, issued when the report was made public, the senator said in part:

"It is evident from the facts supplied to the committee by the persons closest to the road building problems in the several states that if the American highway systems are brought up to the standard of modern requirements it will provide a stimulus to all business and industry for years to come."

The foregoing estimates of the "national highway needs" were set out in the report's Part I, while Part II dealt with "highway transportation in a high-level economy." The latter discussion was based in large part on figures published by the Automobile Manufacturers Association, i.e., such data as the estimated 1948 consumption by the automotive industry of products of other industries; the per cent of farm products and other commodities hauled by truck in 1948; the estimated 1948 vacation-travel income by states; and the estimated 1948 rail-freight shipments of highway transportation industry commodities.

The latter put at 3,917,000 carloads the total "automotive freight" carried by the railroads in 1948. The rail revenue from such freight was estimated at $815 million. These data, the report said, show "the support that the motor-transport industry gives to the railroad industry."

Previously, the report had described the "highway transportation industry" as a "kind of cooperative enterprise in which the people through their governtal agencies provide the roadbed while private corporations and individuals furnish the rolling stock and all the incidental equipment and fuel which makes highway traffic possible." The "people of the nation," the report continued, "receive the benefits of economical transportation in lowered costs of the goods and services they produce and consume, or they pay the added cost of deficient highways in higher transportation and consumer costs."

N.Y.C. Transcontinental Sleepers Now All-Room Cars

All sleeping cars operated in transcontinental service by the New York Central with connecting western railroads now are streamlined, all-room cars, it was announced this week. The Central regularly operates 12 coast-to-coast eastbound and westbound sleepers—eight daily and four every other day. Completing the assignment of private room cars to this service, open-section cars have now been replaced by all-room cars daily on the westbound "Advance Commodore Vanderbilt" and on the eastbound "Lake Shore Limited." Between Chicago and the west coast the cars run in the "Los Angeles Limited" over the Chicago & North Western and the Union Pacific.

French Joins A.A.R. Board

E. S. French, president of the Boston & Maine and Maine Central, was elected to the board of directors of the Association of American Railroads at the board's January 27 meeting in Washington, D. C. He succeeds L. F. Whittemore, who resigned recently from the presidency of the New York, New Haven & Hartford to become president of Brown Brothers.

Revokes Fourth-Section Relief On Inland-to-Florida Rates

The Interstate Commerce Commission has vacated a fourth-section order it entered 18 years ago to accord railroads relief from the Interstate Commerce Act's long-and-short-haul clause so they might maintain rates over all-rail routes which were competitive with rail-ocean rates between inland points and south Atlantic and Florida ports. The commission's report, by Division 2, came after further hearing on Fourth Section Application No. 13918 and related proceedings.

The proceedings were among the fourth-section cases reopened by the commission by its order of July 19, 1946, which required the railroads to show cause why the relief orders should not be vacated. That order was issued in connection with the commission's inquiry into the rail-water competitive situation (see *Railway Age* of August 3, 1946, page 200). The fourth-section order that will be vacated on April 20 as a result of the present report is No. 11027, which has been in effect (with modifications from time to time) since August 24, 1932.

It granted relief in connection with the maintenance of competitive rates over all-rail routes from Ohio and upper Mississippi river crossings, points in Iowa and Missouri taking rates based on the latter crossings north of St. Louis, and points in Minnesota, Wisconsin, Indiana, Michigan, Ohio, West Virginia, and Buffalo-Pittsburgh territory in Pennsylvania and New York, to south Atlantic and Florida ports, Wilmington, N. C., and south thereof. The rates over the all-rail routes have been 110 per cent of those over competing rail-water routes.

The commission's decision to withdraw the relief was based on a record in which it found evidence of "facts and circumstances" which "clearly reveal that the competition of routes embracing water service is no longer an important factor in the movement of this traffic." The railroads "have not shown that there is any such material and compelling rail-water competition to any port as justi-

fies continuation of the relief," the report continued. "On the contrary," it added, "the evidence is convincing that there has been such a material change in circumstances and conditions deemed in the prior reports to be sufficient grounds for granting the relief that its continuance is no longer warranted."

I.C.C. Suspends Proposed Ticket-Redemption Charges

The Interstate Commerce Commission has suspended, from February 1 until August 31, the operation of tariff schedules whereby nine eastern railroads propose to establish charges ranging from 10 cents to 25 cents for handling redemption of wholly unused or partially used railroad and Pullman tickets. The 25-cent charge would apply for the redemption of tickets which had cost $1.15 or more, and other charges would range downward to a minimum of 10 cents that would apply for the redemption of tickets costing $1 or less.

The nine railroads involved are the Boston & Albany, Chesapeake & Ohio, Lehigh Valley, New York Central, Norfolk & Western, Pennsylvania, Pennsylvania-Reading Seashore Lines, Pittsburgh & Lake Erie, and Reading. A protest against the tariffs was filed on behalf of the Secretary of Defense. It said that 1949 redemptions of unused passenger tickets by the Army and Air Force amounted to "more than $2,190,000, while the 1948 total was more than $3,350,000." A "very substantial proportion" of these amounts involved railroad and Pullman tickets, the protest continued.

"It is the opinion of your petitioner," it added, "that the making of refunds for unused . . . tickets is a normal function of the railroads . . . and that the costs are properly chargeable to the operating expenses of the carriers. The proposed charge would appear to be a revenue-producing expedient."

In suspending the tariffs, the commission instituted an investigation of them, docketing the proceeding as I.&S. No. 5751 and assigning it for hearing before Examiner Hall in Washington, D. C., on March 6.

Truck Test Report Shows Progress

With railroad freight claim payments due to rough-riding freight cars mounting to an indeterminate but undoubtedly high figure, particular interest centers in the first progress report on cooperative freight truck and snubber tests now being conducted by the Mechanical Division of the Association of American Railroads in conjunction with interested manufacturers of bolster-spring-snubber arrangements and special designs of high-speed trucks with built-in snubbers. While no conclusions are drawn in the progress report just released, it is obvious that the large amount of information already developed has been instrumental in pointing to design weaknesses which need correction and, by the same token, to other constructions which produce definitely improved riding properties and should be used more extensively.

The present cooperative research program supplements A.A.R.-sponsored road tests in 1933 and 1939 and is well adapted to evaluate the effectiveness of various means of reducing vertical and lateral shocks in freight cars which cause damage to lading and equipment. The program includes two major phases, namely: (1) road tests to determine comparative performances under identical speed, track and other conditions; and (2) laboratory investigations of the service life expectancy of those snubbing designs and devices which show satisfactory results in road tests. Detailed plans for the laboratory tests have not yet been fully developed.

The first progress report covers 78 round-trip comparative tests between July 27 and November 13, 1948, including nine base-line runs with conventional A.A.R. trucks and springs; tests of seven designs of unit-type snubbers in combination with 1⅝-in.-travel standard coil bolster springs; four designs of package-type snubbers, replacing conventional all-coil spring groups; and eight special truck designs having built-in snubbing devices with long-travel bolster springs. The American Steel Foundries five-car service laboratory, leased by the A.A.R., was operated as a special test train on the Illinois Central between Clinton, Ill., and Gilman. The equipment tested was supplied by individual manufacturers, each of whom defrayed the cost of testing his own devices.

An ingenious method of getting around the problem of variables, which make exact duplication of any two test runs impracticable, was adopted, the test train including a "yardstick" car used as a basis of comparison on each run for the truck or device being tested under the "companion" car. By this arrangement the two cars experienced the same variations in load, speed, track and weather conditions and the records for that particular run are comparable.

The first nine tests were conducted by the A.A.R. Mechanical Division Research Office to obtain basic information on the performance of the A.A.R. standard spring-plankless truck without snubbers. A.A.R. 1936 and 1915 standard truck springs and A.A.R. 1947 alternate standard long-travel truck springs were used in the tests. Rail loads were adjusted to 60,000 lb. and 169,000 lb., respectively, and speeds kept below 65 m.p.h.

Tests Nos. 10 through 76 were conducted on devices submitted by the various manufacturers. The unit snubber tests utilized the same loads and speeds just mentioned. In the case of tests of package group snubbers and trucks with built-in snubbers, runs were made with 169,000-lb. loads at speeds up to 65 m.p.h. and additional runs with 145,000-lb. and 60,000-lb. loads at speeds up to 90 m.p.h.

The 1948 road tests, recessed on account of winter weather conditions, were resumed during the same months of 1949 and a summary report of tests up to date

The cooperative management-employee program launched last summer by the Railway Express Agency to improve public relations, increase business and protect employment (see *Railway Age* of October 1, 1949, page 37) has been further strengthened, to maintain positive, continuing effort, by appointment of 12 departmental supervisors of employee and public relations. These men, whose appointments are reported elsewhere in this issue met recently in Chicago in a four-day seminar at which the objectives of the program and the responsibilities of the new supervisors were discussed in detail. Among those attending were (front row, left to right), J. G. Byrnes, supervisor, employee and public relations, New York City department; W. W. Martin, superintendent, employee and public relations; A. M. Hartung, vice-president, personnel and public relations; A. L. Hammell, president; A. F. Hall, assistant to vice-president, employee and public relations; W. B. Harris superintendent, Suggestion bureau; and J. J. Michel, supervisor, employee and public relations, New England department: (rear row, left to right), employee and public relations supervisors F. W. Woods, South Atlantic department; J. A. Warren, Pacific department; J. D. White, Eastern Lakes department; E. J. Hardebeck, North Central department; E. L. Carson, Gulf department; B. M. Neal, Texas department; E. A. Baillie, Allegheny department; T. F. Turner, Mississippi Valley department; E. C. Curry, Chicago department, and G. H. Ames, Mid-West department

has been prepared and will be presented, along with necessary supporting data and detailed test results, at the annual meeting of the Mechanical Division in Chicago next June.

House Gets Toned-Down "Radio-Rules" Bill

The House of Representatives has received from its committee on interstate and foreign commerce a report recommending passage of a toned-down version of the so-called "radio-rules" bill which would broaden section 25 of the Interstate Commerce Act. The filing of the report on January 31 was in accordance with a decision reached by the committee last August, following the close of public hearings on the bill (see *Railway Age* of August 27, 1949, page 52).

The bill is H.R.378, sponsored by the committee's chairman — Representative Crosser, Democrat of Ohio. The original version would have broadened section 25, which now contains provisions of the so-called Signal Inspection Act of 1937, to give the commission authority also over installations of radio and other train-communication systems, and over all railroad operating rules. The bill, as reported, would still give the commission authority to require installations of radio and other train-communication systems, but its authority to prescribe train-operating rules would be confined to rules "in connection with" such installations and installations of signaling devices over which the commission already has authority under the present law.

This toned-down version was suggested by the I.C.C. after it had first given support to the original version, but Commissioner Patterson, to whom the commission's Bureaus of Safety and Locomotive Inspection report, continued to support the original version. The latter was also supported by railroad labor organizations as a "safety" measure, while it was assailed by representatives of railroad management as a "make-work" measure. Although the railroads conceded that the committee amendments "improved" the bill, they took the position that "no bill" should be reported to the House.

In addition to those which would limit the commission's authority over operating rules, the reported version has provisions stipulating that the commission must hold a hearing, if an interested party requests it, before issuing a "mandatory" section 25 order. Also, there are provisions designed to safeguard the present jurisdiction of the Federal Communications Commission over railroad radio installations.

Sanford A. Goodrick, Jr., (left above) chairman of the Northern Indiana chapter of the Railway & Locomotive Historical Society, Inc., gets some pointers from W. A. Weiss (center), New York Central Diesel instructor, at the chapter's January meeting in South Bend, Ind. Through the efforts of Earl G. Wolfe (right), stationmaster at South Bend, chapter members, divided into three groups, were given condensed courses in Diesel locomotive operation in the railroad's Diesel school car X8011, which was spotted for the occasion at the South Bend union station. Groups not in the car were shown N.Y.C. sound motion pictures in the station. A future meeting of the chapter, probably in May, will be held in a Chicago South Shore & South Bend car, hauled by one of that road's new electric locomotives (see *Railway Age*, June 4, 1949, page 59) at Bendix (South Bend) freight yard. The Northern Indiana chapter, organized in 1947 with 10 members, now has 66

ORGANIZATIONS

Mechanical Division of A.A.R. Meets June 26-28, at Chicago

The annual meeting of the Mechanical Division, Association of American Railroads, will be held at Chicago, June 26 to 28, inclusive, in the Congress Hotel, where convention headquarters also will be located.

The **Association of Railroad Advertising Managers,** at its annual meeting in Chicago on January 20 and 21 elected Walter S. Jackson, advertising manager of the Chesapeake & Ohio, as president. Other new officers are: Vice-presidents—Albert W. Eckstein, Illinois Central, Chicago, F. Q. Tredway, Southern Pacific, San Francisco, Cal., and C. C. Dilley, Chicago, Milwaukee, St. Paul & Pacific, Chicago; treasurer—L. A. Brown, Wabash, St. Louis, Mo., and secretary—R. P. Schaffer, Chicago & North Western, Chicago.

W. Vernon Saggus, commercial agent, Norfolk Southern, at Atlanta, Ga., has been elected president of the **Atlanta Chapter** of the **Delta Nu Alpha Transportation Fraternity.**

The **Women's Traffic Club of New York** will hold its next regular meeting on February 14, at 7 p.m., at the Park Sheraton Hotel, 55th street, and 7th avenue, New York. William H. Stanton of the New York Fruit Auction Corporation will speak on "The Fresh Fruit and Vegetable Industry."

The next meeting of the **New England Railroad Club** will be held on February 15, at 6:30 p.m., in the Hotel Vendome, Boston, Mass. L. W. Horning, vice-president, personnel and public relations, New York Central, will be the guest speaker.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings.

AIR BRAKE ASSOCIATION.—Lawrence Wilcox, Room 827, 80 E. Jackson Blvd., Chicago 4, Ill. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

ALLIED RAILWAY SUPPLY ASSOCIATION.—C. F. Weil, American Brake Shoe Company, 6th floor, 109 N. Wabash Ave., Chicago 2, Ill. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis 1, Mo. Annual meeting, June 27-29, 1950, Minneapolis, Minn.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC AGENTS.—C. A. Melin, P. O. Box 5025, Cleveland 1, O.

AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS. — B. D. Branch, C.R.R. of N. J., 143 Liberty St., New York 6, N. Y.

AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, June 6-8, 1950, Hotel Stevens, Chicago, Ill.

AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 18-20, 1950, Hotel Stevens, Chicago, Ill.

AMERICAN RAILWAY CAR INSTITUTE.—W. C. Tabbert, 19 Rector St., New York 6, N. Y.

AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.—W. A. Kluender, Chicago & North Western Rail-

way, 275 E. Fourth St., St. Paul 1, Minn. Annual meeting, April 19-21, 1950, Fontenelle Hotel, Omaha, Neb.

AMERICAN RAILWAY ENGINEERING ASSOCIATION.—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 14-16, 1950, Palmer House, Chicago, Ill.

AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.—W. B. Grumley, Nickel Plate Road Magazine, 432 Terminal Tower, Cleveland 1, O.

AMERICAN SHORT LINE RAILROAD ASSOCIATION.—C. E. Huntley, 2000 Massachusetts Ave., N. W., Washington 6, D. C.

AMERICAN SOCIETY FOR TESTING MATERIALS.—R. J. Painter, Asst. Secretary, 1916 Race St., Philadelphia 3, Pa. Committee Week and Spring Meeting, February 27-March 3, 1950, William Penn Hotel, Pittsburgh, Pa. Annual meeting and exhibit of testing apparatus and related equipment, June 26-30, 1950, Chalfonte-Haddon Hall, Atlantic City, N. J.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS.—C. E. Davies, 29 W. 39th St., New York 18, N. Y. Railroad Division.—E. L. Woodward, *Railway Mechanical and Electrical Engineer*, 79 W. Monroe St., Chicago 3, Ill.

AMERICAN WOOD-PRESERVERS' ASSOCIATION.—H. L. Dawson, 839 Seventeenth St., N. W., Washington 6, D. C. Annual meeting, April 25-27, 1950, Rice Hotel, Houston, Tex.

ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O.

ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.—W. F. Ziervogel, 605 S. Ranken Ave., St. Louis 3, Mo.

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—J. H. Aydelott, Vice-President, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.

Communications Section.—A. H. Grothmann, 30 Vesey St., New York 7, N. Y.

Fire Protection and Insurance Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, June 6-8, 1950, Hotel Statler, St. Louis, Mo.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y. Annual meeting, April 24-25, 1950, Edgewater Gulf Hotel, Edgewater Park, Miss.

Protective Section.—J. C. Caviston, 30 Vesey St.,

(Continued on page 76)

OVERSEAS

England.—British practice in electric and Diesel-electric railway traction is to be discussed at a convention of the Institution of Electrical Engineers at London, England, March 20 to 23, inclusive. Six technical sessions are to include a review of electric railway traction, project considerations, overhead and rail collector equipment, locomotives and coaches, control and auxiliary equipment, and design and maintenance of rolling stock. Further details may be secured from the organization's secretary, Savoy Place, Victoria Embankment, London, W. C. 2.

Turkey.—Engineering and construction work under the E.C.A. program in this country, to cost about $50,000,000, will be supervised by the Koppers Company during the next four years. The program includes supervision of construction of approximately 8 mi. of railroad, a complete switching and transfer station, a harbor, and improvement of mining facilities, including construction of coal washers. Some of the needed equipment will be purchased in the United States and some will come from European nations and Turkey.

Venezuela.—The director of this country's State Railways Administration is reported to be in New York investigating the possibilities of purchasing about $2,000,000 worth of railroad equipment, according to a recent issue of Foreign Commerce Weekly. Interested American firms are asked to address inquiries to the Venezuelan Consulate General, 19 Rector street, New York 6.

SUPPLY TRADE

Baldwin Opens New Diesel Parts Storeroom in Houston

The Baldwin Locomotive Works has announced the opening of a new Diesel locomotive parts storeroom at Houston, Tex. The new storeroom, the company said, will enable more direct and speedy service to customers in Texas and Louisianna formerly served from the Baldwin storeroom at St. Louis, Mo. The new Houston storeroom is in the building which houses the storeroom of the Westinghouse Electric Corporation at 5720 Clinton drive. William A. McKnight, district manager for Baldwin, with offices in the Second National Bank building, Houston 2, is in charge of the new storeroom.

Robert G. Brooks, whose election as president of **S. Karpen & Bros.** was announced in the *Railway Age* of January 28, page 51, joined the firm in August, 1923, as a clerk in the cost department. When the transportation seating division was organized at Michigan City, Ind., he was transferred there, working in various capacities until his appointment as general manager of the division in 1940. He was elected also vice-president of the firm in January, 1946, and to the board of directors in January, 1948. Mr. Brooks will continue as general manager of the transportation seating division in addition to his duties as president of the company.

Robert G. Brooks

Alfred O. Weiland has been appointed general manager of the Lima Works, **Lima-Hamilton Corporation,** at Lima, Ohio. During World War II, Mr. Weiland was vice-president and general manager of the General Machinery Ordnance Corporation, Charleston, W. Va. He had previously been a partner in the George A. Houston Company, consulting engineers, New York, and prior to that, vice-president and general manager of the Baldwin Southwark division of Baldwin Locomotive company. Mr. Weiland was also vice-president and general manager of RCA-Victor at Camden, N. J.

Alfred O. Weiland

Leroy Dougall has been transferred to the **Vapor Heating Corporation's** St. Paul (Minn.)-Minneapolis office, to work on service problems with railroads in Minnesota, Iowa, Wisconsin, the Dakotas and Washington. Mr. Dougall was formerly headquartered at Chicago, and has worked on Vapor equipment on railroads throughout the country.

Harold M. Dudley, financial vice-president of **Pullman, Incorporated,** has been elected a director. **Wilbur E. Wolfe,** assistant secretary and assistant treasurer, has been elected secretary-treasurer to succeed the late **John F. Lane,** whose death was reported in the *Railway Age* of December 24, 1949.

James E. Davenport, formerly vice-president, engineering, development and research of the American Locomotive Company, has been elected president and a director of the **E. A. Lundy Company.**

The **Kansas City Car Company** and the **Acme Tank Car Corporation,** subsidiaries of the **Shippers' Car Line Corporation,** which is owned by the **American Car & Foundry Co.,** have been merged with Shippers' Car Line. The Acme shop at East St. Louis, Ill., and the Kansas City Car Repair shop at North Kansas City,

Mo., will continue to function as heretofore.

The **Hyster Company**, Peoria, Ill., has announced appointment of the following three new district managers of industrial truck sales: **Donald R. Shaffer**, who has been in sales research and sales promotional work with the company for the past two years, as manager of the southeastern Canada, eastern Michigan, northern Ohio and southwestern New York territory; **John F. Wright**, in the engineering department of Hyster for more than a year, as manager of an area including Alaska, western Canada, Washington, Oregon and parts of Montana and Idaho; and **Karl T. Barr**, formerly with the Caterpillar Tractor Company, Peoria, as manager in charge of sales in the Hawaiian Islands and several western states, including California, Arizona, Nevada and Utah.

Henrik Greger has been appointed Diesel engine representative for the **Lima-Hamilton Corporation** in California, with headquarters at San Mateo. Mr. Greger will handle the sale of all Hamilton Diesel engines, parts, and service in that state, and will also represent Lima-Hamilton on steam engines and service to steam engines for both stationary and marine use.

Carl F. Norberg, vice-president in charge of manufacturing of the **Electric Storage Battery Company** since 1944, has been elected executive vice-president.

Edward W. Kavanagh, formerly sales manager of the Ulster Iron Works, has joined the **Manganese Steel Forge Company**, Philadelphia, Pa., where he will be in charge of sales, service and research of the railway division, southern region, with headquarters at Norfolk, Va.

R. G. Fredette, formerly with the Raytheon Manufacturing Corporation, has been appointed production manager for the **Hunt-Spiller Manufacturing Corporation**, Boston, Mass.

The **Electric Railway Improvement Company**, Cleveland, Ohio, has changed its name to **Erico Products, Inc.**

M. Hirschthal, retired concrete engineer of the Delaware, Lackawanna & Western, has entered private practice as consulting engineer with offices at 420 Madison avenue, New York.

The **Link-Belt Company** has opened a factory branch store and warehouse at 2630 Holmes street, Kansas City, Mo.

B. S. Williams has resigned as executive vice-president of **E. A. Lundy, Inc.** Mr. Williams has announced that he will form a new company in the railroad refrigeration and air-conditioning field.

T. N. Snyder and **R. W. Sherk** have been appointed general service manager and general parts manager, respectively, for **General Motors Diesel Limited**, London, Ont. Mr. Snyder, formerly district engineer of the Electro-Motive Division of General Motors Corporation at Detroit, Mich., will maintain new headquarters at Montreal, Que., and Mr. Sherk, formerly parts merchandising manager at Electro-Motive, will make his headquarters in London, Ont., where the company is building a new plant, scheduled for completion in mid-summer of this year.

The **Spears Construction Company**, formerly headquartered at Chicago, is now located at Cincinnati, Ohio, 7875 Reading road, telephone Valley 5671.

OBITUARY

A. C. Reemer, owner of the Interstate Supply Company, Chicago, which sells mill supplies to railroads, died recently in the Illinois Central hospital, after a heart attack. Mr. Reemer also represented the Hewitt Rubber Company in the railway field. He was the brother of F. O. Reemer, vice-president of the Pullman-Standard Car Manufacturing Company at Birmingham, Ala.

Alan E. Ashcraft, Sr., who retired in 1946 as a vice-president of Fairbanks, Morse & Co., Chicago, died at his home in that city on January 23.

Sidney Bruce Cooper, transportation engineer for the Westinghouse Electric Corporation, died on January 20 in Pittsburgh, Pa.

Frank Atherton Ketcham, retired chairman of the board of the Graybar Electric Company, died on January 24, at his home in New Rochelle, N. Y. He was 74 years old.

EQUIPMENT AND SUPPLIES

Domestic Equipment Orders Reported in January

Domestic orders for 179 Diesel-electric locomotive units and 5,625 freight cars were reported in *Railway Age* last month. No orders for passenger cars were reported. The freight cars reported ordered last month totaled about 63 per cent of all freight cars purchased during 1949 for domestic service (see *Railway Age* of January 7, page 77). The cost of the locomotive units reported ordered in January is estimated at approximately $25,276,000 and of the freight cars at $32,575,000. An accompanying table lists the orders in detail.

Locomotives

Date	Purchaser	No.	Type	Builder
Jan. 14	Indianapolis Union	5	1,000-hp. D.-E. sw. unit	Fairbanks, Morse
Jan. 21	L. & N.	34	1,500-hp. D.-E. "A" frt. unit	Electro-Motive
		3	1,500-hp. D.-E. "B" frt. unit	Electro-Motive
		6	1,100-hp. D.-E. sw. unit	Electro-Motive
		9	660-hp. D.-E. sw. unit	American
Jan. 21	M. PM.	11	1,000-hp. D.-E. sw. unit	Baldwin
		31	1,500-hp. D.-E. frt. unit	Electro-Motive
		2	1,500-hp. D.-E. pass. unit	Electro-Motive
		4	2,250-hp. D.-E. pass. unit	Electro-Motive
		5	1,200-hp. D.-E. sw. unit	Electro-Motive
		5	1,500-hp. D.-E. sw. unit	Electro-Motive
		15	1,500-hp. D.-E. frt. unit	American
		4	2,000-hp. D.-E. pass. unit	American
Jan. 28	C. of N. J.	8*	1,500-hp. D.-E. gen. svce. unit	American
		5	1,000-hp. D.-E. sw. unit	American
		4	1,500-hp. D.-E. gen. svce. unit	Fairbanks, Morse
		4**	1,000-hp. D.-E. sw. unit	Electro-Motive
		3**	1,000-hp. D.-E. sw. unit	Baldwin
Jan. 28	Southern	21	1,500-hp. D.-E. road unit	Electro-Motive

Freight Cars

Jan. 7	L. & N. E.	35	70-ton Cov. Hopper	Bethlehem
Jan. 14	L. & N.	500	50-ton Box	Pullman-Standard
Jan. 14	Western Fruit Express	450	50-ton Refrig.	Pacific Car & Fdy.
Jan. 21	A.T. & S.F.	500	50-ton Box	Pullman-Standard
Jan. 21	U. P.	2,500	50-ton Box	R. R. Shops
		500	40-ton Stock	R. R. Shops
		1,000	50-ton Gondola	General American
Jan. 28	Fruit Growers Express	100	50-ton Refrig.	Co. Shops
Jan. 28	St. L.-S.F.	40	70-ton Cov. Hopper	Pullman-Standard

*Includes 5 for Central of Pennsylvania.
**For C. of Pa.

M. P. to Spend $4.7 Million For Rail, Track Materials

Expenditure by the Missouri Pacific Lines of $4,703,720, of which $2,619,579 will be for new rail and $2,084,141 for other track materials, has been approved by the federal district court at St. Louis, Mo. The road will purchase 35,640 net tons of rail, to be used in 170.2 mi. of track, including 4,560 tons of 132-lb. rail and 31,080 tons of 115-lb.

P. J. Neff, chief executive officer, said the new steel will replace "badly worn rail of lighter weight that has been in

main-line service for periods varying from 11 to 27 years." Some 25,000 tons of the new rail will be used on 120.2 mi. of M. P. lines north of Texarkana and Alexandria, La., while the remainder will be divided, 6,384 tons for 30 mi. of the St. Louis, Brownsville & Mexico (part of the Gulf Coast Lines) and 4,256 tons for 20 mi. of the International-Great Northern.

FREIGHT CARS

The **Central of Pennsylvania** has ordered 125 70-ton hopper cars from the Bethlehem Steel Company.

The **Chicago & Eastern Illinois** has ordered 25 70-ton covered hopper cars from the Pullman-Standard Car Manufacturing Company.

The **Delaware, Lackawanna & Western** has ordered 300 70-ton covered hopper cars from the American Car & Foundry Co.

The **Northern Pacific** is inquiring for 500 50-ton box cars and 50 caboose cars.

The **Seaboard Air Line** is inquiring for 300 70-ton phosphate cars.

The **Southern Pacific** has ordered 2,000 50-ton box cars from the Pullman-Standard Car Manufacturing Company; 1,000 50-ton automobile cars from the S.P.'s Sacramento, Cal., shops, and 100 70-ton drop-end gondola cars from the Ralston Steel Car Company. Deliveries are scheduled to begin in the spring and to be completed by the end of the year. The road's intention to purchase this equipment was reported in the *Railway Age* of November 26, 1949, page 59.

PASSENGER CARS

The **New York Central System** has ordered two of the Budd Company's new all-stainless steel rail Diesel cars (RDC-1), it was announced this week by Edward G. Budd, Jr., president. Mr. Budd said he had been informed that the cars would be used to establish a new service on the Boston & Albany between Boston, Mass., Worcester and Springfield. Each of the cars, which were described in detail in an illustrated feature article in the *Railway Age* of September 17, 1949, will cost $128,750.

The **Western Pacific** has ordered one all-stainless steel rail Diesel car from the Budd Company at a cost of $127,800. The new car, designated the RDC-2, is the first of this model to be sold, and differs from the RDC-1 (two of which, as reported above, have been ordered by the New York Central System), only in that a 17-ft. section of the interior is devoted to a baggage compartment. Delivery is scheduled for April. The W.P. will use the car to replace two steam trains between Sacramento, Cal., and Salt Lake City, Utah. A demonstration model of the car already has been operated in trial revenue service on the W.P. (see *Railway Age* of January 14, page 44).

LOCOMOTIVES

The **Seaboard Air Line** has ordered 26 Diesel-electric locomotive units, and is inquiring for 36 additional units. Of those ordered, 12 1,500-hp. road units are scheduled to be delivered by the Electro-Motive Division of General Motors Corporation in March; 11 1,600-hp. road units by the American Locomotive Company in March, and three 1,000-hp. switching units by the Baldwin Locomotive Works in February and March. Those for which inquiries have been made include 18 1,600-hp. and 18 1,500-hp. road units.

SIGNALING

The **Chesapeake & Ohio** has ordered from the Union Switch & Signal Co. materials for installation of an electro-pneumatic car retarder system in its empty-car yard at Presque Isle coal decks (Toledo, Ohio). The installation includes 3 model 31 car retarders totaling 206.0 rail ft., 9 direct-acting electro-pneumatic switches, and 2 control machines, with necessary housings, relays, rectifiers and transformers for detector track circuits for the switches. Field installation will be handled by railroad forces.

The **Missouri Pacific** has ordered from the General Railway Signal Company equipment for installation of type K two-wire centralized traffic control on 52 mi. of single track between Middle Brook, Mo., and Mill Spring. The control machine, to be located at Poplar Bluff, Mo., will have a 70-in. panel equipped with 35 indication lights and 28 levers for control of 14 electric switch machines and 56 signals. Included in this order are type G high signals, type L dwarf signals, model 5D switch machines, type K relays and welded steel bungalows.

The **Norfolk & Western** has ordered from the Union Switch & Signal Co. material to replace an existing 26-lever mechanical interlocking at Bluefield, Va., with a 2½-ft. style C machine, controlling style A-5 electro-pneumatic switch machines and position-light signals. Field installation will be handled by railroad forces.

The **Norfolk & Western** has ordered from the Union Switch & Signal Co., material to modernize signaling between Bluefield, W. Va., and Iaeger, 52.41 mi. The order includes coded track circuit apparatus and position-light signals to replace exisiting a.c. track circuits and semaphore signals. Construction will be handled by railroad forces.

The **Union Pacific** has ordered from the Union Switch & Signal Co. 106 sets of three-indication type E cab signal equipment for use on 281 mi. of line between North Platte, Neb., and Omaha.

CONSTRUCTION

Illinois Terminal.—This road has authorized the following projects for 1950, the estimated costs of which are shown in parentheses: Construct new passenger and freight facilities at East Peoria, Ill. ($175,000); install additional yard tracks at Decatur, Ill. ($35,000); improve substructure of the Sangamon River bridge, north of Springfield, Ill.; and change line at Shelbytown, Ill. ($20,000).

ABANDONMENTS

Chicago & Eastern Illinois.—Examiner Robert Romero has recommended to the I.C.C. that this road be permitted to abandon 10.6 mi. of branch line from Milford Junction, Ill., to Freeland Park, Ind. The examiner found the line has been operated at a loss for the past few years, and said prospective future traffic does not appear sufficient to permit profitable operation.

Denver & Rio Grande Western.—The I.C.C. has denied this road's application for authority to abandon its 8.9-mi. Reilly Canon branch in Las Animas county, Colo. At the same time, the commission refused to permit the D.&R.G.W. to abandon operation under trackage rights over 4.12 mi. of Colorado & Wyoming line, the connecting link between the Reilly Canon branch and the Atchison, Topeka & Santa Fe at Jansen, Colo. The applications were denied without prejudice to renewal by the road within a year. The commission followed the recommendations of Examiner Robert Romero, whose proposed report in the case was reported in *Railway Age* of December 10, 1949, page 73.

Applications have been filed with the Interstate Commerce Commission by:

Chicago & North Western.—To abandon its 37.7-mi. branch between Belle Plaine, Iowa, and What Cheer. The I.C.C. refused to permit the abandonment in 1943 and again in 1945, but without prejudice to renewal of the application "when the shortage of short-haul trucking facilities had been overcome." The C.&N.W. said in its new application that operation of the branch since 1946 has been "decidedly unfavorable" financially.

Northern Pacific.—To abandon approximately 17 mi. of branch line between Rush City, Minn., and Grantsburg, Wis., abandonment of which was denied

by the I.C.C. in 1944 because of war conditions. The N.P. stated in its renewed application that cost of operating the branch "continues to greatly exceed the revenues."

FINANCIAL

Arkansas & Ozarks.—*Acquisition, Financing, and Control.*—The I.C.C. has authorized this new company to acquire approximately 65.9 mi. of line between Harrison, Ark., and Seligman, Mo., together with approximately 5.2 mi. of branch lines. The entire line was formerly a part of the 335-mi. system of the Missouri & Arkansas, which was abandoned in 1948. Concurrently, the I.C.C. granted the A. & O. authority to finance the acquisition by issuing 1,500 shares of preferred stock and 500 shares of common, both of the par value of $100 a share. These shares will be delivered to former M. & A. owners as payment for the segment. The A. & O. is further authorized to issue $40,000 in first-mortgage 4 per cent notes, and these will also be delivered to the stockholders as evidence of advances made by them to place the new road into operation. The notes will mature over the period from May 1, 1950, to February 1, 1952. (See *Railway Age* of January 7, page 278).

The A. & O. will be controlled by the six persons who owned the M.&A. at the time of its abandonment, and the stocks authorized by the commission will go to them in the same ratios in which they held M.&A. stock—i.e., Murray M. Salzberg, 40 per cent; Meyer P. Gross, 7½ per cent; Morris H. Snerson, 2½ per cent; Saul Frankel, 25 per cent; Maurice Schwartz, 12½ per cent; and Herman Schwartz, 12½ per cent. The commission also gave Messrs. Salzberg, Gross and Snerson permission to acquire control of the A. & O. The three men already own controlling interest in three other shortline roads.

Lackawanna & Wyoming Valley.—*Compensation for Trustee.*—The I.C.C. has approved payment of $5,500 a year to E. McLain Watters, as trustee of this road. The rate of compensation was set by the U. S. District Court for the Middle District of Pennsylvania, subject to the commission's approval, and is made effective as of December 1, 1949. The I.C.C. approved appointment of Mr. Watters as trustee on November 10, 1949.

Missouri-Kansas-Texas. — *Bond Modification.*—Examiner John L. Bradford has recommended to the I.C.C. that it approve, with modifications, this road's plan to fund the unpaid interest accumulations on its series A, 5 per cent, adjustment mortgage bonds. The plan, to be carried out under the provisions of the so-called Mahaffie Act (section 20b of the Interstate Commerce Act), involves bonds that are outstanding in the amount of $13,555,865. As of January 1, the unpaid interest amounted to $350 per $1,000 bond—a total of $4,744,553. (See *Railway Age* of July 30, 1949, page 65). Examiner Bradford would approve the plan under which the road would create a secured debenture mortgage and issue debenture bonds to adjustment-mortgage bondholders in exchange for their unpaid interest coupons. The new debentures, dated January 1, 1950, would mature January 1, 1967, and bear interest at 1 per cent, cumulative up to 4 per cent of their face amount. However, the road estimates it could retire all the debentures by 1954 under sinking fund and call provisions. Modifications recommended by Examiner Bradford would make interest payments on the debenture bonds "mandatorily payable when earned." He would also require that sinking fund payments be met if earnings permit. A third recommendation was that the road should be required to submit the funding plan to the affected bondholders and to preferred stockholders as well, where a favorable vote by holders of 75 per cent of each would be required before the plan could be placed in operation.

In recommending approval of the plan, Examiner Bradford said that "without doubt, the liquidation of the interest accumulation on the bonds. . . would improve applicant's credit standing, enable it to maintain a sound cash position, and tend to stabilize the market value of all of its securities."

New York, Ontario & Western.—*Sale of Property.*—Disposition of this railroad's property was postponed this week in New York by Federal Judge Edward A. Conger. The postponement—until June 7—was made to enable the New York, New Haven & Hartford to study the N.Y.O.&W. property with a view to buying 70 per cent of it. Samuel Rosoff, New York subway builder, who earlier had indicated interest in the N.Y.O.&W., also said he needed more time to learn whether financing could be arranged. Four operating unions representing 400 N.Y.O.&W. employees, called a strike against the road for February 16 unless the present trustees are removed or an answer is received to the demand for a wage increase of 10 cents an hour.

Reading.—*Merger of Leased Line.*—The I.C.C. has authorized merger into the Reading of the Mill Creek & Mine Hill Navigation & Railroad Co., a 4.9-mi. line between Mill Creek Junction, Pa., and Broad Mountain station, which has been leased by the Reading since 1861. (See *Railway Age* of September 24, page 70.) The Reading, which now owns all but 638 of 12,935 outstanding shares of Mill Creek stock, proposes to acquire all the stock and surrender it for cancellation. As payment for those shares not held by itself, the Reading has agreed to pay $53 a share plus a commission of 25 cents a share, or to exchange 1¼ shares of Reading first preferred stock for each share of Mill Creek. The I.C.C. report noted that this merger would save the Reading an estimated $7,207 annually.

Southern. — *Reduces Dividend.* — This company has declared a dividend of 75 cents a share on common stock, payable March 15 to stockholders of record February 15. Ernest E. Norris, president, said the Southern has returned to a $3 annual dividend basis and that the reduction from the $4 rate paid in 1949 was made after the directors had considered the continuing adverse effects of the coal strike, increased wage rates and various claims made against the railroad industry by the government.

Tennessee Central.—*R.F.C. Loans.*—This road has applied to the I.C.C. for permission to extend for 10 years from April 1 its outstanding loans from the Reconstruction Finance Corporation, consisting of $5,232,300 in principal and $375,000 in unpaid interest As security for the loans the road would continue to pledge its first mortgage 4 per cent 30-year bonds, due April 1, 1967. In its application, the road stated that operations are now on a profitable basis, following installation in 1949 of Diesel-electric locomotives which have greatly reduced expenses. It went on to say that prospects for increased traffic in the next few years are good.

New Securities

Application has been filed with the Interstate Commerce Commission by:

Belt of Chicago.—To assume liability for $2,832,000 of equipment trust certificates to finance in part 20 Diesel-electric locomotive units, as follows:

	Description and Builder	Estimated Unit Cost
4	1,000-hp. switching units (American Locomotive Company)	$ 97,843
9	1,500-hp. switching units (American)	135,625
7	2,000-hp. transfer units (Electro-Motive Division, General Motors Corporation)	197,274

The application placed the estimated total cost of the equipment at $2,992,915. The Belt already has contracted with the 12 railroads that own its stock, providing for advances from these roads to cover the down payment of approximately $160,915 on the new equipment. Under terms of the contract, further periodical advances will be made to meet the regular installments of the certificates as they fall due. The certificates would be dated April 1, mature in 24 semi-annual installments of $118,000 each, beginning October 1, and be sold by competitive bids, with the interest rate to be set by such bids.

Division 4 of the I.C.C. has **authorized:**

Chicago, Rock Island & Pacific.—To issue and sell $55,000,000 of new first mortgage bonds, series A, dated January 1, 1950, and due January 1, 1980, and thus take the final step in its plan for refinancing all of its mortgage indebtedness. The proceeds of the issue will be used to redeem $25,760,000 of short-term notes and $33,644,400 of general mortgage, 4½ per cent, convertible

income bonds, series A, due January 1, 2019. (See *Railway Age* of December 24, 1949, page 51.) Proceeds of the short-term notes were used to redeem on January 1 the road's first mortgage, 4 per cent bonds, series A, these notes having been issued as a preliminary step in the refinancing plan. Successful bid for the $55,000,000 issue was by Halsey, Stuart & Company and 82 associates, who bid 98.81 with interest at 2⅞ per cent, which makes the average annual cost approximately 2.93 per cent.

Average Prices Stocks & Bonds

	Jan. 31	Prev. week	Last year
Average price of 20 representative railway stocks..	42.34	42.26	42.85
Average price of 20 representative railway bonds..	92.20	91.93	89.58

Dividends Declared

Cincinnati, New Orleans & Texas Pacific.—5% preferred, $1.25, quarterly, payable March 1 to holders of record February 15.

Erie.—$5 preferred A, $1.25, quarterly, payable March 1, June 1, September 1, and December 1, to holders of record February 10, May 12, August 11, and November 10.

Nashville, Chatanooga & St. Louis.—Irregular, 75c, payable March 1 to holders of record February 8.

Norfolk & Western.—75c, quarterly, payable March 10 to holders of record February 8.

Southern.—common, 75c, payable March 15 to holders of record February 15.

RAILWAY OFFICERS

EXECUTIVE

W. H. Kendall, whose appointment as assistant to president of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of January 28, was born at Somerville, Mass., and educated at Dartmouth College and Thayer School of Civil Engineering.

W. H. Kendall

After 15 years in the engineering department of the Pennsylvania, Mr. Kendall entered the service of the A.C.L. on July 16, 1948, as staff assistant in the office of vice-president and general manager, and was appointed assistant to general manager on January 16, 1949.

FINANCIAL, LEGAL & ACCOUNTING

George H. Penland, whose appointment as general solicitor — system, Missouri-Kansas-Texas Lines, at Dallas, Tex., was reported in the *Railway Age* of January 14, is a native of Hayesville, N. C., and attended public school at Whitewright, Tex., and Grayson College and Baylor

George H. Penland

University. After a period of private law practice in Texas, he joined the Katy in 1929 as assistant general solicitor of the M-K-T of Texas. In March, 1943, he was appointed general attorney, and in November, 1945, was advanced to general solicitor, with headquarters at Dallas. Mr. Penland held the latter post at the time of his new appointment.

A. H. Rau, whose promotion to general superintendent, freight claims, of the Chicago, Rock Island & Pacific, at Chicago, was reported in the *Railway Age* of January 21, was born in that city on July 9, 1887. Mr. Rau entered Rock Island service in November, 1902, at Chicago, serving in various capacities at that point until 1916, when he was transferred to Colorado Springs, Colo., as transportation inspector. In 1918 he returned to Chicago as traveling claim adjuster, becoming chief perishable investigator there in 1923. Mr. Rau was advanced to assistant general superintendent, freight claims, in January, 1945, which position he held at the time of his recent promotion.

William A. Smith has been appointed assistant to chief claim agent of the New York Central, with headquarters at Chicago, succeeding **Charles P. Rath,** promoted to assistant chief claim agent at that point, as reported in the *Railway Age* of December 31, 1949.

E. A. White, auditor of freight accounts of the Chicago, Burlington & Quincy at Chicago, has been promoted to auditor of expenditures, succeeding **C. A. Bick,** recently elected comptroller of the Chicago, Indianapolis & Louisville, as reported in the *Railway Age* of January 28. **G. A. K. Richard,** auditor of ticket accounts at Chicago, succeeds Mr. White, and is replaced in turn by **H. W. Dehning,** assistant auditor of expenditures at Chicago. **F. T. Cole** succeeds Mr. Dehning.

C. H. Slattery, assistant to general land and tax agent of the New York Central System, has been appointed assistant general land and tax agent, with headquarters as before at New York.

OPERATING

Stuart Shumate, whose appointment as superintendent of Potomac yard, Alexandria, Va., was reported in the *Railway Age* of January 7, was born on August 22, 1915, at Calverton, Va., and was graduated from Calverton high school and Virginia Polytechnic Institute (B.S. in C.E., 1936). Mr. Shumate entered railroad service in June, 1936, with the Pennsylvania, and served in various capacities and locations prior to his appointment as supervisor of track, at Wheeling, W. Va., in 1942. Beginning

Stuart Shumate

in 1943, he served with an army railway operating battalion in the Eastern Theater of Operations until 1946, when he re-entered the service of the Pennsylvania as supervisor of track at Columbus, Ohio. On September 6, 1946, he resigned from the P.R.R., to accept appointment as supervisor of track, Potomac yard, and three months later went to Fredericksburg, Va., in a similar capacity on the main line of the Richmond, Fredericksburg & Potomac, where he remained until his recent appointment.

W. C. Hawes, superintendent car service of the Bessemer & Lake Erie at Greenville, Pa., has been appointed superintendent transportation.

Henry M. Senff, whose retirement as superintendent of passenger transportation, Michigan Central district, New York Central System, at Detroit, Mich., was reported in the *Railway Age* of January 28, was born on January 1, 1885. Mr. Senff entered service with the Central in 1902 as an operator at

Detroit. In 1911 he was advanced to dispatcher, becoming chief night dispatcher in 1912. Subsequently he was promoted to superintendent of passenger transportation, Michigan Central district, at Detroit.

C. M. Martin, superintendent of he Southern division, Kansas City Southern, at Shreveport, La., has been transferred to the Northern division, with headquarters at Pittsburg, Kan., succeeding **C. Gibbs,** who has retired after 38 years of service. **R. M. Blaydes,** trainmaster at Shreveport, succeeds Mr. Martin, and is replaced in turn by **R. E. Canty.**

Walter T. Truax, whose promotion to superintendent of passenger transportation, Michigan Central district, New York Central System, at Detroit, Mich., was reported in the *Railway Age* of January 28, is a native of Coboconk. Ont. During World War I he served in the Canadian Army and shortly after his release he went to Detroit, joining the Central at that point in 1920 as an operator. He became a train dispatcher in 1929 and was appointed night train dispatcher in 1942. Mr. Truax held the latter position at the time of his promotion.

W. D. Quarles, Jr., trainmaster of the Richmond district of the Atlantic Coast Line at Rocky Mount, N. C., has been appointed superintendent terminals at Richmond, Va., succeeding **R. G. Murchison,** who has retired at his own request, after more than 45 years of service with this road. **Clem Patterson,** survey committee — transportation inspector, has been appointed trainmaster, North End, Richmond district, at Rocky Mount. **H. F. Newland,** special assistant in the transportation department, has been appointed transportation assistant at Wilmington, N. C. A biography and photograph of Mr. Murchison were published in the *Railway Age* of February 19, 1949, page 65.

Russell S. Reuss, trainmaster of the Syracuse division of the New York Central at Syracuse, N. Y., has been transferred to the Electric, Harlem and Putnam divisions at New York, succeeding **Curtis D. Buford,** who has been transferred to the Buffalo division at Buffalo, N. Y. **Alexander Matthews, Jr.,** transportation assistant to vice-president at New York, has been appointed trainmaster of the St. Lawrence, Ottawa and Adirondack divisions at Watertown, N. Y., succeeding **Nathan W. Watson,** who has been transferred to the Syracuse division.

TRAFFIC

M. Dudley Riggs, whose promotion to general passenger traffic manager of the St. Louis-San Francisco at St. Louis, Mo., was reported in the *Railway Age* of January 7, was born in that city on October 5, 1892. Mr. Riggs attended Central High School, St. Louis, and entered railroad service in September, 1910, with the Vandalia (now part of the Pennsylvania), serving successively through December, 1916, as clerk in the office of general manager, and stenographer in the freight rate department and general freight office at St. Louis. In January, 1917, he joined the Frisco at St. Louis as secretary to the passenger traffic manager. He later held the positions of passenger representative at Cincinnati, Ohio, district passenger agent at Fort Worth, Tex., and district passenger agent and

M. Dudley Riggs

assistant general agent at Chicago. From 1930 to 1935 he was employed as a salesman by Halsey Stuart & Co., and Kleinkopf-Weicher Company, Burlington, Iowa. Subsequently, Mr. Riggs returned to the Frisco as assistant general passenger agent. During World War II he was furloughed to the Office of Defense Transportation in Washington, D. C., to serve as assistant director of the Division of Traffic Movement. In October, 1944, he was appointed general passenger agent at St. Louis, the post he held prior to his recent promotion.

R. F. Berndt, assistant to general traffic manager of the Minneapolis, St. Paul & Sault Ste. Marie at Minneapolis, Minn., has been promoted to assistant general passenger agent at that point, succeeding **J. W. Lydon,** appointed advertising manager. **George E. Forrest,** general agent at Chicago, has retired after 50 years service with the Soo Line. **C. O. Norwick,** assistant general freight agent, sales, at Minneapolis, has been transferred to Chicago as assistant general freight agent. **A. O. Plunkett,** general agent at Philadelphia, Pa., becomes general freight agent, sales and service, at Minneapolis, and is succeeded by **J. S. McGogy,** general agent at Eau Claire, Wis. **J. G. Quick** succeeds Mr. McGogy.

C. H. Saltmarsh, general agent, passenger department, of the Union Pacific at New York, has been transferred to Los Angeles, Cal., as general passenger agent. **Rhees Fife,** district passenger agent at New York, succeeds Mr. Saltmarsh. Promoted to replace Mr. Fife is **N. E. Luthi,** traveling passenger agent at Chicago. Mr. Saltmarsh began his railroad career at Boston, Mass., in 1920 with the Pacific Fruit Express (U. P. subsidiary). He became freight rate clerk for the U. P. at Boston in 1922 and during subsequent years was advanced through various positions in the traffic department at Denver, Colo., Omaha, Neb., Salt Lake City, Utah, Los Angeles and New York. He became general agent in the passenger department at New York in 1944.

Howard S. Powell, general freight agent of the Illinois Central at Chicago, has been appointed to the newly-created post of assistant freight traffic manager, effective February 1. Promoted to succeed Mr. Powell is **Norman E. White,** assistant general freight agent at Chicago. **Roy W. Tierney,** office manager in the rate department at Chicago, succeeds Mr. White.

John C. Nolan, assistant general passenger agent of the Western Pacific at New York, has been promoted to general Eastern freight agent, with headquarters as before at New York.

J. W. Dawson, district passenger agent of the Canadian Pacific at Calgary, Alta., has retired after more than 48 years service. Appointed to succeed Mr. Dawson is **William Robson,** general agent, passenger department, at Montreal, Que. **A. K. Stewart,** district passenger agent at Winnipeg, Man., succeeds Mr. Robson. **Walter Fridfinnson,** city passenger agent at Winnipeg, has been advanced to general agent, passenger department, at that point.

Charles Wallace Thacker, general agent of the Chicago & Eastern Illinois at Indianapolis, Ind., has retired after 45 years of railroad service, the last 25 of them with the C.&E.I. **C. A. Brizius,** general agent at Tulsa, Okla., succeeds Mr. Thacker and is replaced in turn by **C. E. Combs,** chief clerk for the general freight agent of the C.&E.I. at St. Louis, Mo.

Arthur C. Thompson, assistant general passenger agent of the Big Four district of the New York Central, has been promoted to general passenger agent, with headquarters as before at Cincinnati, Ohio, succeeding **James P. Corcoran,** who retired on January 31, after serving a few months short of a half century with the road. Mr. Thompson entered the service of the N.Y.C. on March 3, 1901, as agent's helper at Windsor, Ill., and served at Cairo, Ill.; Kansas City, Mo., and St. Louis; Omaha, Neb., and Rutland, Vt., before going to Cincinnati as assistant general passenger agent.

Mr. Corcoran, a native of Covington, Ky., began his railroad service with the N.Y.C. at Cincinnati as an office boy and progressed through various ticket agent jobs at Peoria, Ill.; Louisville, Ky.; Lafayette, Ind.; Toledo, Ohio, and Cleveland, and Indianapolis, Ind. He was assistant general passenger agent at St. Louis

News Department continued on next left-hand page

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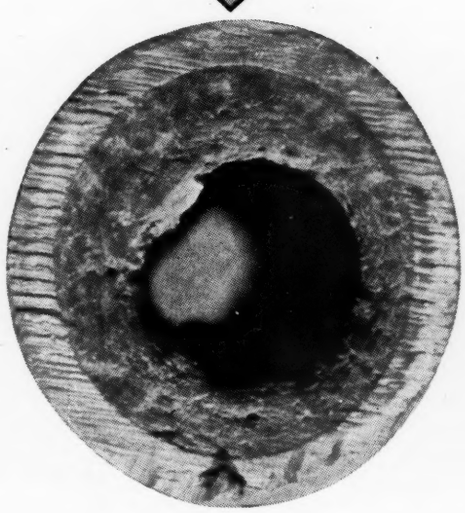

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before going to Cincinnati in 1937 as general passenger agent. Mr. Corcoran, who is a city councilman of South Fort Mitchell, Ky., asked for retirement three years before it would have become compulsory in order to devote his time to personal affairs.

Joseph A. Dana, whose promotion to general freight agent of the Gulf, Colorado & Santa Fe at Galveston, Tex., was reported in the *Railway Age* of December 31, 1949, was born on December 10, 1891, at Topeka, Kan., where he attended public grade and high schools. He entered railroad service with the Atchison, Topeka & Santa Fe in his native city in August, 1907, being transferred to Oklahoma City, Okla., in 1923 as rate clerk in the division freight office. He was appointed city freight agent at that point in 1926, and traveling freight agent, with headquarters in Denver, Colo., in 1936. In 1940 he was advanced to division freight agent at Temple, Tex., becoming acting division freight agent at Houston, Tex., in June, 1941. Later that year Mr. Dana was appointed division freight agent at Houston and in July, 1945, was made assistant general freight agent there, which position he held at the time of his recent promotion.

Joseph A. Dana

PURCHASES and STORES

J. Albert DeWolfe, assistant purchasing agent of the Canadian Pacific at Winnipeg, Man., has retired after nearly 47 years service. He is succeeded by **Gordon M. Keith,** chief clerk in the purchasing department since 1940.

ENGINEERING & SIGNALING

J. B. Harvey, supervisor of structures of the Denver & Rio Grande Western at Alamosa, Colo., has been promoted to division engineer at Grand Junction, Colo., succeeding **Charles L. Schiller,** appointed assistant to general manager.

G. F. Metzdorf, assistant chief draftsman for the New York, Chicago & St. Louis, has been advanced to designing engineer, with headquarters as before at Cleveland, Ohio, succeeding **L. E. Horner,** who died January 14.

J. M. Trissal, superintendent of communication and electrical engineer of the Illinois Central at Chicago, has been appointed assistant chief engineer.

J. M. Trissal

Promoted to succeed Mr. Trissal is **Paul B. Burley,** assistant superintendent of communication, Northern lines, with headquarters at Chicago. Mr. Trissal was born in Chicago on December 30, 1903, and received his bachelor's degree in electrical engineering from the University of Illinois in 1925. In 1940 he obtained the professional degree of electrical engineer. His career with the I. C. began in 1924 as a draftsman in the signal department, while he was still attending the university. In 1926 he was transferred to the electrical section of the Chicago terminal improvement department, then engaged on electrification of Chicago suburban service. He was promoted to assistant engineer in that department in 1928 and advanced to assistant electrical engineer, fixed property, in 1930. In 1931 Mr. Trissal was further advanced to electrical engineer, fixed property, becoming superintendent of communication and electrical engineer in October, 1945.

Paul B. Burley

Mr. Burley was born in Chicago on May 28, 1898, and received his electrical engineering degree in 1921 from the University of Illinois. He joined the I. C. in February of that year as a computer, later becoming junior engineer of the Chicago terminal improvement department. He was advanced to supervisor of electrical maintenance in 1926 on the Chicago terminal, and in 1931 was made assistant engineer in the telegraph and signal department. In February, 1944, Mr. Burley was appointed electronics engineer, and in August, 1945, became assistant superintendent of communication, Northern lines.

SPECIAL

J. W. Lydon, assistant general passenger agent of the Minneapolis, St. Paul & Sault Ste. Marie at Minneapolis, Minn., has been appointed advertising manager. **E. W. Ledin,** supervisor of less-carload traffic, has been appointed supervisor of freight claim prevention.

The following have been appointed supervisors of employee and public relations of the Railway Express Agency: New York City department, **James G. Byrnes,** chief clerk to superintendent of the Vehicle division at New York; Northeastern department, Boston, Mass., **Joseph J. Michel,** division supervisor at Boston; Allegheny department, Philadelphia, Pa., **Eric A. Baillie,** chief clerk to superintendent at Philadelphia; Chicago department, **Edward C. Curry,** chief clerk to general manager at Chicago; Eastern Lakes department, Detroit, Mich. **James D. White,** chief clerk to general manager at Detroit; North Central department, Chicago, **Edward J. Hardebeck,** chief clerk to superintendent at Milwaukee, Wis.; Mississippi Valley department, St. Louis, Mo., **Thomas F. Turner,** division supervisor at St. Louis; South Atlantic department, Washington, D. C., **Ferris W. Woods, Jr.,** division supervisor at Charlotte, N. C.; Gulf department, Atlanta, Ga., **Etheridge L. Carson,** division supervisor at Columbus, Ga.; Mid-West department, Kansas City, Mo., **Clifford H. Ames,** general agent at Pueblo, Colo.; Pacific department, San Francisco, Cal., **James A. Warren,** supervisor of transportation at San Francisco; and Texas department, Houston, Tex., **Burford M. Neal,** division supervisor at Dallas, Tex.

OBITUARY

Fremont Hill Cummings, coal traffic manager of the Chesapeake & Ohio at Cincinnati, Ohio, died on January 20, after a lengthy illness, in his 57th year.

William C. Pinger, assistant comptroller of the Northern Pacific at St. Paul, Minn., died in that city on January 26.

Mile after mile

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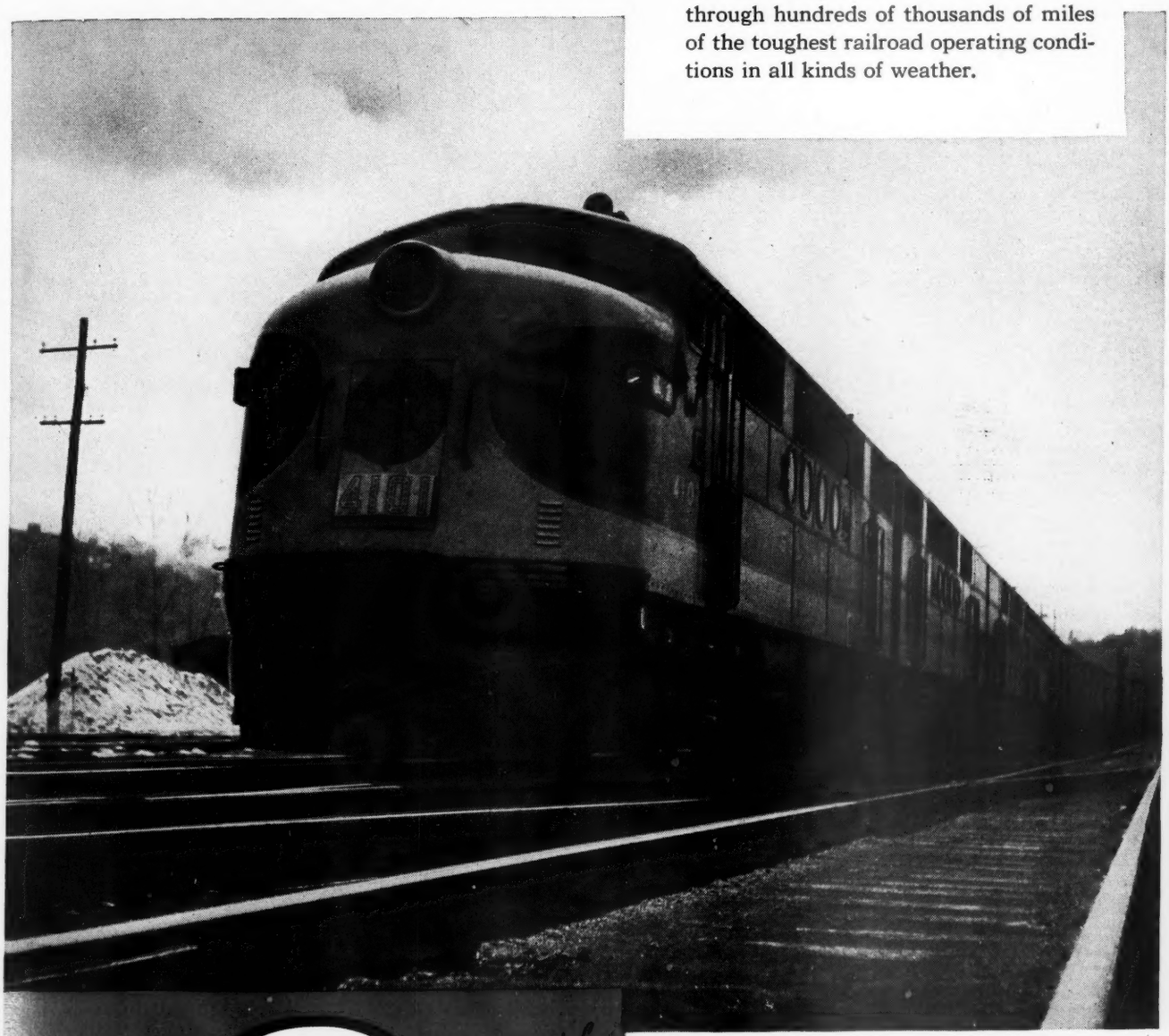

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OPERATING REVENUES AND OPERATING EXPENSES OF CLASS I STEAM RAILWAYS

Compiled from 129 monthly reports of revenues and expenses representing 133 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF NOVEMBER 1949 AND 1948

Item	United States		Eastern District		Southern District		Western District	
	1949	1948	1949	1948	1949	1948	1949	1948
Miles of road operated at close of month	226,650	226,731	53,429	53,487	46,006	46,091	127,215	127,153
Revenues:								
Freight	$587,060,008	$691,195,285	$202,684,426	$260,871,774	$121,004,341	$137,700,211	$263,371,241	$292,623,300
Passenger	63,775,769	74,220,264	36,643,467	39,473,571	8,298,545	10,852,094	18,833,757	23,894,599
Mail	19,013,934	18,875,788	6,784,442	6,563,700	3,488,489	3,399,471	8,741,003	8,912,617
Express	6,948,003	7,899,796	2,056,022	2,327,819	1,186,893	1,228,156	3,705,088	4,343,821
All other operating revenues	28,008,148	33,154,371	12,103,750	14,704,597	4,435,695	5,249,613	11,468,703	13,200,161
Railway operating revenues	704,805,862	825,345,504	260,272,107	323,941,461	138,413,963	158,429,545	306,119,792	342,974,498
Expenses:								
Maintenance of way and structures	93,491,755	114,256,835	31,154,099	41,073,662	20,756,361	24,100,210	41,581,295	49,082,963
Depreciation	10,766,501	10,454,617	4,525,150	4,419,989	1,899,015	1,829,976	4,342,336	4,204,652
Retirements	1,720,431	1,505,485	457,951	607,053	373,461	137,265	889,019	761,167
Deferred maintenance	*357,948	*285,225	296,195	104,021	*78,418	*59,900	*575,725	*329,346
Amortization of defense projects	150,259	170,635	15,660	21,140	47,579	59,699	87,020	89,796
Equalization	5,379,316	238,349	2,762,711	*78,169	1,058,342	886,017	1,558,263	*569,499
All other	75,833,196	102,172,974	23,096,432	35,999,628	17,456,382	21,247,153	35,280,382	44,926,193
Maintenance of equipment	125,251,786	146,536,285	48,106,962	61,569,668	24,660,347	29,320,787	52,484,477	55,645,830
Depreciation	24,364,290	21,822,493	9,365,344	8,625,843	5,418,513	4,813,902	9,580,433	8,382,748
Retirements	*80,030	*50,843	*28,099	*15,721	*40,947	*27,366	*10,984	*7,756
Deferred maintenance and major repairs	135,093	*358,275	274,471	44,000	*9,071	*165,531	*130,307	*236,744
Amortization of defense projects	1,217,407	1,225,929	451,593	452,334	238,570	238,904	527,244	534,691
Equalization	*5,700	*345,246	89,556	*65,689	*141,975	*212,522	46,719	*67,035
All other	99,620,726	124,242,227	37,954,097	52,528,901	19,195,257	24,673,400	42,471,372	47,039,926
Traffic	15,571,396	16,673,114	5,288,300	5,821,345	3,218,620	3,512,596	7,064,476	7,339,173
Transportation—Rail line	272,151,660	325,223,240	112,766,713	136,570,688	49,825,210	59,491,771	109,559,737	129,160,781
Miscellaneous operations	8,839,516	10,671,084	3,343,167	4,204,249	1,191,111	1,518,322	4,305,238	4,948,513
General	22,048,260	24,126,193	8,164,109	9,414,377	4,641,725	5,365,914	9,242,426	9,345,902
Railway operating expenses	537,354,373	637,486,751	208,823,350	258,653,989	104,293,374	123,309,600	224,237,649	255,523,162
Net revenue from railway operations	167,451,489	187,858,753	51,448,757	65,287,472	34,120,589	35,119,945	81,882,143	87,451,336
Railway tax accruals	77,190,410	90,305,379	23,309,862	30,768,651	17,381,797	18,388,135	36,498,751	41,148,593
Pay-roll taxes	19,751,338	22,268,293	7,632,566	9,182,919	3,728,893	4,255,469	8,389,879	8,829,905
Federal income taxes†	30,383,514	41,338,250	6,077,946	11,371,854	7,026,903	8,452,409	17,278,665	21,513,987
All other taxes	27,055,558	26,698,836	9,599,350	10,213,878	6,626,001	5,680,257	10,830,207	10,804,701
Railway operating income	90,261,079	97,553,374	28,138,895	34,518,821	16,738,792	16,731,810	45,383,392	46,302,743
Equipment rents—Dr. balance	11,347,117	10,277,767	4,172,141	4,781,015	*198,165	*1,557,334	7,373,141	7,054,086
Joint facility rent—Dr. balance	3,331,834	3,207,966	1,611,873	1,491,207	490,835	490,016	1,229,126	1,226,743
Net railway operating income	75,582,128	84,067,641	22,354,881	28,246,599	16,446,122	17,799,128	36,781,125	38,021,914
Ratio of expenses to revenues (percent)	76.2	77.2	80.2	79.8	75.3	77.8	73.3	74.5

FOR THE ELEVEN MONTHS ENDED WITH NOVEMBER 1949 AND 1948

Item	United States		Eastern District		Southern District		Western District	
	1949	1948	1949	1948	1949	1948	1949	1948
Miles of road operated at close of month	225,337	227,024	53,433	53,603	46,029	46,134	125,875	127,287
Revenues:								
Freight	$6,472,739,840	$7,328,359,173	$2,385,930,011	$2,789,327,632	$1,293,032,516	$1,494,799,487	$2,793,777,313	$3,044,232,054
Passenger	786,364,668	873,631,971	413,040,300	447,002,804	120,876,057	135,565,531	252,448,311	291,063,636
Mail	199,425,965	176,759,009	73,103,951	63,530,010	36,044,104	31,592,214	90,277,910	81,636,785
Express	70,469,098	107,796,554	18,933,380	35,659,963	12,274,063	18,120,765	39,261,655	54,015,826
All other operating revenues	340,492,203	378,711,802	150,560,622	167,370,310	55,199,700	62,384,765	134,731,881	148,956,727
Railway operating revenues	7,869,491,774	8,865,258,509	3,041,568,264	3,502,890,719	1,517,426,440	1,742,462,762	3,310,497,070	3,619,905,028
Expenses:								
Maintenance of way and structures	1,190,440,193	1,240,391,329	417,012,365	461,396,834	244,654,083	258,561,399	528,773,745	520,433,096
Depreciation	116,725,006	114,077,340	49,037,159	48,361,204	20,328,806	19,887,388	47,359,041	45,828,748
Retirements	12,777,343	12,706,046	2,941,693	3,248,493	1,963,767	1,710,753	7,871,883	7,746,800
Deferred maintenance	*3,486,932	*3,355,838	*32,227	*1,967	*1,651,730	*1,009,316	*1,802,975	*2,344,555
Amortization of defense projects	1,650,205	1,906,702	170,228	156,567	513,644	493,169	966,333	1,256,966
Equalization	59,012	*842,810	*460,828	*2,464,124	777,046	1,567,086	*257,206	54,228
All other	1,062,715,559	1,115,899,889	365,356,340	412,096,661	222,722,550	235,912,319	474,636,669	467,890,909
Maintenance of equipment	1,469,727,412	1,550,770,237	597,128,056	656,938,158	291,700,166	312,890,156	580,899,190	580,941,923
Depreciation	256,403,877	228,697,116	99,090,734	90,214,017	57,298,748	50,692,867	100,014,395	87,790,232
Retirements	*656,485	*937,671	*141,871	*127,431	*187,673	*266,886	*326,941	*543,354
Deferred maintenance and major repairs	*1,046,945	*3,346,285	*349,578	91,000	*226,446	*1,272,985	*470,921	*2,164,300
Amortization of defense projects	13,398,371	13,503,576	4,923,532	4,944,996	2,625,740	2,628,326	5,849,099	5,930,254
Equalization	2,126,920	962,907	1,564,692	288,227	584,167	694,420	*21,939	*19,740
All other	1,199,501,674	1,311,890,594	492,040,547	561,527,349	231,605,630	260,414,414	475,855,497	489,948,831
Traffic	178,227,038	176,141,355	60,686,019	60,483,879	37,388,521	38,213,962	80,152,498	77,443,514
Transportation—Rail line	3,126,832,327	3,486,532,748	1,315,540,646	1,475,505,254	567,357,445	643,653,697	1,243,934,236	1,367,373,797
Miscellaneous operations	108,362,756	120,481,899	40,046,930	45,820,457	15,759,198	17,740,484	52,556,628	56,920,958
General	249,904,679	243,670,307	96,398,511	94,971,931	53,418,125	54,348,332	100,088,043	99,350,044
Railway operating expenses	6,323,494,405	6,822,987,875	2,526,812,527	2,795,116,513	1,210,277,538	1,325,408,030	2,586,404,340	2,702,463,332
Net revenue from railway operations	1,545,997,369	2,042,270,634	514,755,737	707,774,206	307,148,902	417,054,732	724,092,730	917,441,696
Railway tax accruals	777,235,706	946,933,676	258,528,369	322,266,293	165,833,287	210,793,766	352,874,050	413,873,617
Pay-roll taxes	232,382,913	243,357,696	94,665,691	101,046,715	44,234,405	47,664,969	93,482,817	94,646,012
Federal income taxes†	250,315,827	414,651,701	57,500,482	111,027,872	59,047,414	102,847,611	133,767,931	200,776,218
All other taxes	294,536,966	288,924,279	106,362,196	110,191,705	62,551,468	60,281,186	125,623,302	118,451,387
Railway operating income	768,761,663	1,095,336,958	256,227,368	385,507,913	141,315,615	206,260,966	371,218,680	503,568,079
Equipment rents—Dr. balance	118,133,454	122,290,795	50,505,738	55,073,872	*6,190,275	*15,227,621	73,817,991	82,444,544
Joint facility rent—Dr. balance	35,473,170	35,325,341	17,077,443	16,942,569	5,382,395	5,111,944	13,013,331	13,270,828
Net railway operating income	615,155,039	937,720,822	188,644,187	313,491,472	142,123,494	216,375,643	284,387,358	407,852,707
Ratio of expenses to revenues (percent)	80.4	77.0	83.1	79.8	79.8	76.1	73.1	74.7

†Includes income tax and surtax.
*Decrease, deficit, or other reverse item.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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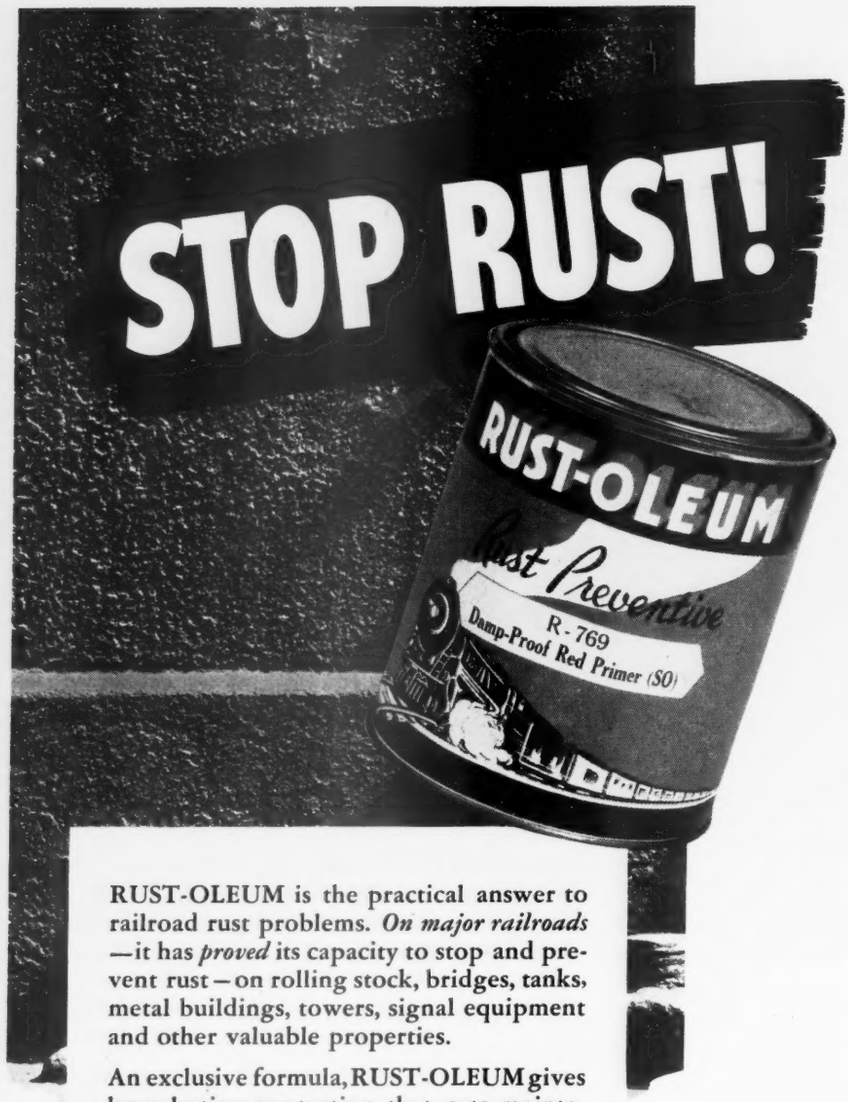

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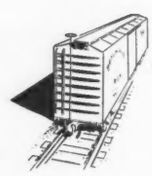

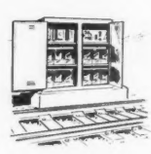

RUST-OLEUM CORPORATION

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Meetings and Conventions

(*Continued from page 65*)

New York 7, N. Y. Annual meeting, May 24-26, 1950, Hotel Statler, Boston, Mass.

Safety Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y. Annual meeting, June 22-24, 1950, Cosmopolitan Hotel, Denver, Colo.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 14-16, 1950, Palmer House, Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y. Annual meeting, September 18-20, 1950, Hotel Statler, N. Y.

Mechanical Division.—Fred Peronto, 59 E. Van Buren St., Chicago 5, Ill.

Electrical Section.—J. A. Andreucetti, 59 E. Buren St., Chicago 5, Ill. Annual meeting, June 26-28, 1950, Congress Hotel, Chicago, Ill.

Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C. Annual meeting, June 14-16, 1950, Hotel Statler, St. Louis, Mo.

Freight Claim Division.—C. C. Beauprie, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, May 2-4, 1950, Hotel Jefferson, Richmond, Va.

Motor Transport Division.—Transportation Bldg., Washington 6, D. C.

Car Service Division.—Arthur H. Gass, Chairman, Transportation Bldg., Washington 6, D. C.

Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice President, Transportation Bldg., Washington 6, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C. Annual meeting, July 31-August 3, 1950, Chateau Laurier Ottawa, Ontario, Canada.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.

Traffic Department.—Walter J. Kelly, Vice-President, Transportation Bldg., Washington 6, D. C.

Association of Interstate Commerce Commission Practitioners.—Sarah F. McDonough (Executive Secretary) 2218 I.C.C. Building, Washington 25, D. C.

Association of Railroad Advertising Managers.—Samuel E. McKay, Baltimore & Ohio R. R., Grand Central Station, Chicago 7, Ill.

Association of Railway Claim Agents.—F. L. Johnson, Gulf, Mobile & Ohio R. R., 104 St. Francis St., Mobile 5, Ala. Annual meeting, June 21-23, 1950, Hotel President, Kansas City, Mo.

Bridge and Building Supply Men's Association.—E. C. Gunther, Duff-Norton Mfg. Co., 122 S. Michigan Ave., Chicago 3, Ill. Exhibit in conjunction with meeting of American Railway Bridge Building Association, September 18-20, 1950, Hotel Stevens, Chicago, Ill.

Canadian Railway Club.—C. R. Crook, 4415 Marcil Ave., N. D. G., Montreal 28, Que. Regular meetings second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

Car Department Association of St. Louis.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis 3, Mo. Regular meeting, fourth Tuesday of each month, except June, July and August, Hotel DeSoto, St. Louis, Mo.

Car Department Officers' Association.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

Car Foremen's Association of Chicago.—J. A. Dingess, Union Tank Car Company, 228 N. LaSalle St., Chicago 1, Ill. Regular meetings, second Monday of each month except June, July and August, LaSalle Hotel, Chicago, Ill.

Central Railway Club of Buffalo.—R. E. Mann, Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

Coordinated Railroad Mechanical Associations.—C. F. Weil, American Brake Shoe Company, 6th floor, 109 N. Wabash Ave., Chicago 2, Ill. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

Eastern Association of Car Service Officers.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

Eastern Car Foreman's Association.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

Locomotive Maintenance Officers' Association.—C. M. Lipscomb, 1721 Parker St., North Little Rock, Ark. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

Maintenance of Way Club of Chicago.—E. C. Patterson, 400 W. Madison St., Chicago 6, Ill. Regular meetings, fourth Monday of each month, October through April, inclusive, except December, when the third Monday, at Eitel's Restaurant, Field Bldg.

Master Boiler Makers' Association.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

METROPOLITAN MAINTENANCE OF WAY CLUB. — Walter L. Turner, Jr., Simmons-Boardman Publishing Corp., 30 Church St., New York 7, N. Y. Meets in October, December, February and April. Next meeting, dinner, February 23, 1950, Hotel Shelburne, New York, N. Y.

MILITARY RAILWAY SERVICE VETERANS.—S. Thomson, 1061 W. Sheridan Road, Chicago 40, Ill.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington 25, D. C.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—A. P. Little, Dennison Manufacturing Company, Framingham 12, Mass. Annual meeting, October 4-5, 1950, Denver, Colo.

NATIONAL DEFENSE TRANSPORTATION ASSOCIATION. —Miss Lois E. Casavant, 930 F. St., N. W., Washington 4, D. C.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE. — Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November 16-17, 1950, San Francisco, Calif.

NATIONAL RAILWAY APPLIANCES ASSOCIATION. — R. B. Fisher, 59 E. Van Buren St., Chicago 5, Ill.

NATIONAL SAFETY COUNCIL, RAILROAD SECTION.— J. R. Thexton, Delaware, Lackawanna & Western R.R. Co., Hoboken, N. J.

NEW ENGLAND RAILROAD CLUB.—William M. McCombs, 35 Lewis Wharf, Boston 10, Mass Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB. — D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION. — G. H. Wells, Northern Pacific Railway, St. Paul 1, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

NORTHWEST LOCOMOTIVE ASSOCIATION. — R. M. Wigfield, Northern Pacific Ry., Room 1134, G. O. Bldg., St. Paul 1, Minn. Regular meetings, third Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB. — S. E. Byler, 121 E. Sixth St., Los Angeles 14, Cal. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Ill.

RAILWAY CLUB OF PITTSBURGH. — J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August. Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION. — J. McC. Price, Allen-Bradley Company, 445-447 N. La Salle St., Chicago 10, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION. — T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill. Annual meeting, September 18-21, 1950, Hotel Sherman, Chicago, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.— A. W. Brown, 60 E. 42nd St., New York 17, N. Y.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section of A.A.R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo. Annual meetings, August 28-30, 1950, Brown Hotel, Louisville, Ky.

ROADMASTERS AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise La Chance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 18-20, 1950, Hotel Stevens, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION. — G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A.A.R. Signal Section.

SOUTHEASTERN DIESEL RAILWAY CLUB. — John Sims, P.O. Box 155, Buena Vista Station, Miami 37, Fla. Regular meetings, second Tuesday in February, April, June, August, October, and December, 9:30 a.m., Mayflower Hotel, Jacksonville, Fla.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB. — A. T. Miller, 4 Hunter St., S. E. Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS. —E. E. Humble, High Point, Thomasville & Denton R.R., High Point, N. C.

TORONTO RAILWAY CLUB.—D. L. Chambers, P. O. Box 8, Terminal "A", Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION. — Lewis Thomas, Q and C Company, 59 E. Van Buren St., Chicago 5, Ill. Exhibit in conjunction with meeting of Roadmasters & Maintenance of Way Association of America, September 18-20, 1950, Coliseum, Chicago, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS. — Roy E. Collins, 225 Bidwell Ave., Westerleigh, Staten Island 2, N. Y.

WESTERN RAILWAY CLUB. — E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Meeting scheduled for: February 13, March 20, April 18 and May 22, Hotel Sherman, Chicago, Ill.

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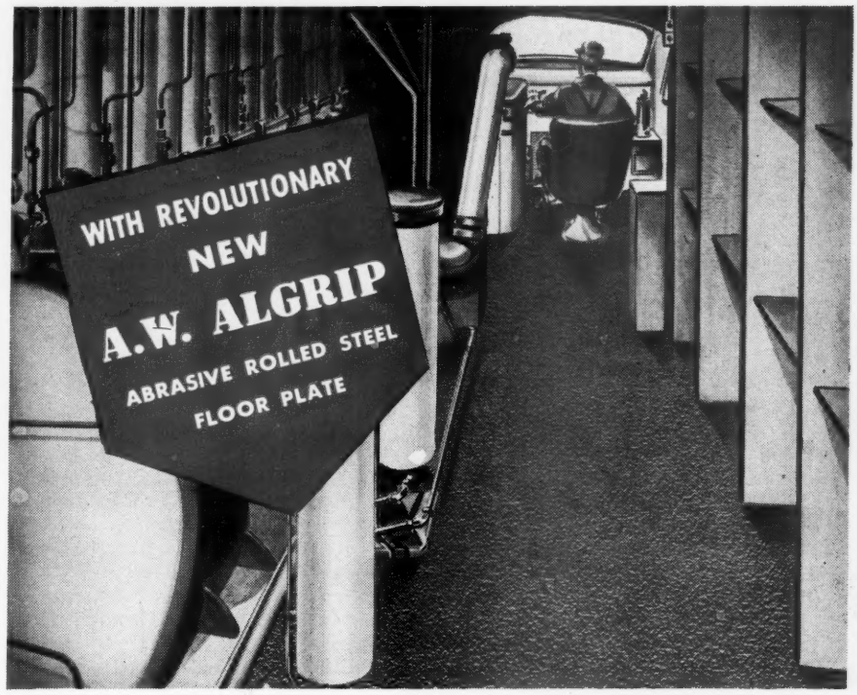

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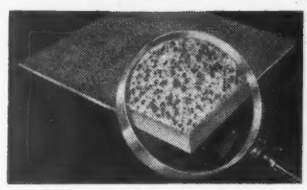

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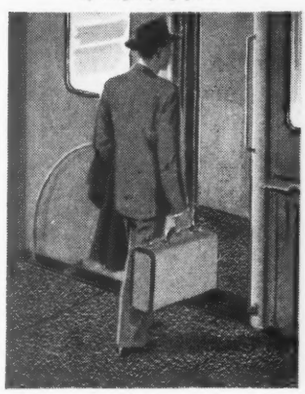

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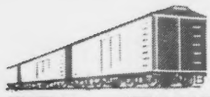

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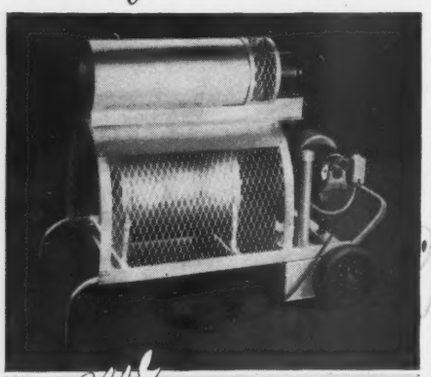

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Current Publications

PERIODICAL

Overseas Railways, 1949. 128 pages, illustrations, maps. Published by the Railway Gazette, 33 Tothill st., Westminster, S.W.1, London, England. Five shillings.

Coverage in this edition has been extended, and includes a majority of the Indian systems, most of the chief lines within the British Empire and representative railways from the European continent. One American railroad—the Pennsylvania—is also reviewed. The articles review the present position and development programs of the various railways. Many specially drawn maps are included, as well as a number of excellent photographs.

PAMPHLETS

Port of Milwaukee. 40 pages, illustrations, map. Published by the Board of Harbor Commissioners, Milwaukee, Wis. Free.

This pamphlet, subtitled "The Most Progressive Port on the Great Lakes," covers the physical description of the harbor, history of the port, the port authority, commerce of the port, municipal port facilities, industrial development of the outer harbor, ocean shipping services, economic benefits of the port, Milwaukee and the St. Lawrence Seaway (which the city supports enthusiastically), aviation facilities, and the harbor railroad problem. Included also are a list of transportation lines serving the port, a list of port agencies, and a list of harbor facilities.

Bibliography of Reports on Railroad Transportation (SB-21). September, 1949. 3 pages. Prepared by, and available from, the Office of Technical Services, United States Department of Commerce, Washington 25, D. C. Free.

One of the basic objectives of the Office of Technical Services is to make available to the public all declassified U.S. scientific and technical research and information, and manuals, technical orders, etc., not available in printed form from other sources, including the Superintendent of Documents. Captured German and Japanese scientific, technical and industrial information is also processed and distributed. This bibliography lists reports made available since the original compilation of the railroad transportation bibliography. It includes reports on Japanese and German railroads as well as reports on military railway service.

Bulletin 78 of the Railway & Locomotive Historical Society, Inc. 111 pages, illustrations. Published by the Railway & Locomotive Historical Society, Baker Library, Harvard Business School, Boston, Mass. Price, to members, $1; to non-members, $2.

The feature article in this bulletin is one on the Panama Railroad by Alexander Saunders. Since much has been written about this road since its acquisition by the United States government, Mr. Saunders covers the preliminary surveys, the construction period, the "golden years," 1852-1869, decline and reconstruction, 1869-1879, period of French ownership, 1879-1903, and closes his account with the relocation of the old line by the Isthmian Canal Commission. Other articles cover the history of the Chicago, Burlington & Quincy from February 14, 1855, to July 9, 1856; Canada's earliest railway lines; the railroads of McKean county, Pa., and a short history of the Denver & Rio Grande Western.

Big Progress and Big Business Go Together. by Charles E. Wilson. 63 pages. Published by the General Electric Company, Schenectady, N. Y. Free.

This is the testimony presented on November 30, 1949, by Charles E. Wilson, president of the General Electric Company, before the special subcommittee of the judiciary committee of the House of Representatives in connection with its study of antitrust laws. In addition to his formal statement, this pamphlet contains the accompanying statement of Dr. C. G. Suits, vice-president and director of research laboratory of G.E., and excerpts from Mr. Wilson's testimony in response to questions by the subcommittee.

PERIODICAL ARTICLE

Biding His Time on Rails. Business Week, January 21, 1950, pp. 27-28. Published by McGraw-Hill Publishing Company, 330 W. 42nd st., New York 18. Single copies, 25 cents.

According to Business Week, Robert R. Young has taken one beating after another in rail ventures, but he's "biding his time on rails." He is talking softly, may make his peace with the Association of American Railroads; he hasn't quit the rails, and dreams of a merger of New York Central and Southern Pacific.

BOOK

Papers Presented at the 42nd Annual Meeting of the Smoke Prevention Association of America, Inc. 188 pages, charts, drawings. Published by John Paul Taylor, 520 Pleasant st., St. Joseph, Mich. $2.

Among the papers covered herein are several dealing with smoke abatement on railroads, including one on "Abatement of Smoke and Cinders from Locomotives and at Roundhouse Terminals." The American Society of Mechanical Engineers' panel discussion on "Example Sections for a Smoke Regulation Ordinance" included a paper on "A Model for Smoke and Dust Regulation Laws Section of Railroad Handling"; and the panel discussion on railroad locomotive smoke abatement consisted of six papers on "The Education of Engine Crews"; "Railroad Locomotive Smoke Control in Cincinnati, Ohio"; "How We Live and Comply with Louisville, Nashville and Birmingham Smoke Ordinances"; "Why the Railroads Should Administer and Police Their Own Smoke" (abstracted in *Railway Age* of July 23, 1949, page 26); "Steam-Air Jets for Locomotive Smoke Abatement"; and "Railroad Smoke Problems of Milwaukee County."

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